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Precision and Accuracy Assessments for State and Local Air Monitoring Networks, 1988

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16. ABSTRACT

Precision and accuracy data obtained from state and local agencies (SLAMS) during 1988 are analyzed. Pooled site variances and average biases which are relevant quantities to both precision and accuracy determinations are statistically compared within and between states to assess the overall effectiveness and consistency in the application of various quality assurance programs. Individual site results are evaluated for consistent performance throughout the year. Reporting organizations, states and regions which demonstrate consistent precision and accuracy data as the result of effectively administered quality assurance programs are identified. This information is intended as a guide for identifying problem areas, for taking corrective action from the standpoint of improving the effectiveness of quality assurance programs, and for providing more knowledgeable decisions concerning attainment status with regards to ambient air quality standards. An approach to deal with accuracy data for individual sites is presented, and an alternative sampling design for generating precision and accuracy data is discussed. A comparison of the SLAMS accuracy results with the corresponding results from the EPA national ambient air audit program is also provided.

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PRECISION AND ACCURACY ASSESSMENTS FOR STATE AND LOCAL AIR MONITORING NETWORKS
1988

by

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FOREWORD

Measurement and monitoring research efforts are designed to anticipate potential environmental problems, to support regulatory actions by developing an in-depth understanding of the nature and processes that impact health and the ecology, to provide innovative means of monitoring compliance with regulators, and to evaluate the effectiveness of health and environmental protection efforts through the monitoring of long term trends. The Atmospheric Research and Exposure Assessment Laboratory, Research Triangle Park, North Carolina, has the responsibility for assessment of environmental monitoring technology and systems; implementation of agency-wide quality assurance programs for air pollution measurement systems; and supplying technical support to other groups in the Agency including the Office of Air and Radiation, the Office of Toxic Substances, and the Office of Enforcement.

Ambient air quality data collected by the states and local agencies are used in planning the nation's air pollution control strategy, in determining if National Ambient Air Quality Standards are being achieved, and in determining long term trends of air quality. Prior to the regulations of May 10, 1979, the procedures used in site selection, controlling equipment, and calculating and validating data varied considerably among agencies. These regulations serve to improve and make more uniform the quality assurance programs of the states and local agencies and to require the reporting of data quality estimates for precision and accuracy beginning for the calendar year 1981. Revisions to regulations promulgated March 19, 1986, required reporting of individual site data beginning January 1987. This report presents a statistical analysis of the results for 1988 to assess the overall effectiveness of various quality control programs administered by the states and local agencies.

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Director
Atmospheric Research and Exposure
Assessment Laboratory

ABSTRACT

Precision and accuracy data obtained from states and local agencies during 1988 are analyzed. Average biases, pooled standard deviations, and 95% probability limits of percent differences are presented for both accuracy and precision data. The results of a site-by-site linear regression are reported for the accuracy data. Reporting organizations, states and regions which demonstrate consistent precision and accuracy data as the result of effectively administered quality assurance programs are identified. The effectiveness of the quality assurance programs on a national level is gauged by use of percentiles for the percent differences. The PARS and NPAP data sets for 1988 are analyzed and compared. This information is intended as a guide for identifying problem areas within the quality assurance programs which may need added attention and for allowing more knowledgeable decisions concerning attainment status regarding ambient air quality standards.

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SECTION 1

INTRODUCTION

Revisions to Appendix A, 40 CFR Part 58 promulgated March 19, 1986, required site-specific precision and accuracy data to be submitted as actual test results beginning in January 1987. This report analyzes these data for the year January, 1988 to December, 1988. The availability of individual site data and the opportunity to assess the performance of specific instruments was cited as a way to improve the usefulness of the data quality estimates associated with the NAMS/SLAMS monitoring network (1). The regulations did not, however, specify how this would be accomplished except that EPA would now be responsible for calculating the pooled precision and accuracy probability limits formerly calculated and reported by the reporting organizations. The objectives of this report are to analyze and interpret individual Precision and Accuracy Reporting System (PARS) site data as they pertain to:

1. Identifying extreme measurement errors.
2. Evaluating the effectiveness of SLAMS quality assurance programs.
3. Validating models used to describe precision and accuracy data.
4. Improving decisions concerning attainment of air quality standards as they relate to specific instruments.

The goal is to provide an overall assessment of various quality assurance programs at the reporting organization, state, and regional levels. Unless otherwise noted, region as used in this report refers to EPA regions. Calculations or information not presented here may be obtained by accessing the PARS data files themselves (2).

The National Performance Audit Program (NPAP) also collects accuracy data, and this data set was analyzed as well. At those sites which had measurements from both networks, the NPAP and PARS accuracy data were compared.

Manual SO_2 and NO_2 data were not included in this report because so little data are available.

SECTION 2

DATA SCREENING AND COMPUTATIONAL FORMULAE

REPORTING OF INDIVIDUAL SITE QUALITY CONTROL DATA

Precision and accuracy data for 1988 were stored in the Precision and Accuracy Reporting System (PARS) data files as individual site-date pairs of indicated (measured) concentrations (or flow rates in the case of TSP or PM-10) and designated (known, actual, primary) concentrations (or flow rates). Before calculating pooled precision and accuracy probability limits, data records were checked for coding inconsistencies (e.g., matching date and quarters, proper method codes and corresponding units codes, matching state and region codes, etc.). Cases for which an inconsistency could not be resolved were excluded from the calculations. In addition, the ranges and limits specified in 40 CFR Part 58 (1) for designated audit concentrations (indicated flow rates) were used to screen data pairs. Data pairs which were not in conformance (allowing for rounding) and in which at least one of the values of a pair was missing or was at the minimum detectable limit for the instrument were not used in probability limit calculations or data analyses.

Slightly more than 8% (6,671 of 79,952) of the PARS precision data pairs were outside the CFR guideline limits. This is more than double the percentage in the 1987 data set reported by Suggs (3); this increase is attributable to larger numbers of particulate and gas data pairs not satisfying the guidelines. Ambient lead levels accounted for the largest number (2,234) of the nonconforming pairs; as with the 1987 data, this constituted approximately two-thirds of the lead pairs, and the deletion of this large percentage of Pb data pairs cut the national probability limits in half. The remaining 4,437 precision pairs outside the guideline limits were distributed as (with the 1987 totals in parentheses): particulate (TSP and PM-10) - 1,888 (901); SO_2 - 1,029 (0); CO - 771 (13); O_3 - 396 (0); NO_2 - 353 (0).

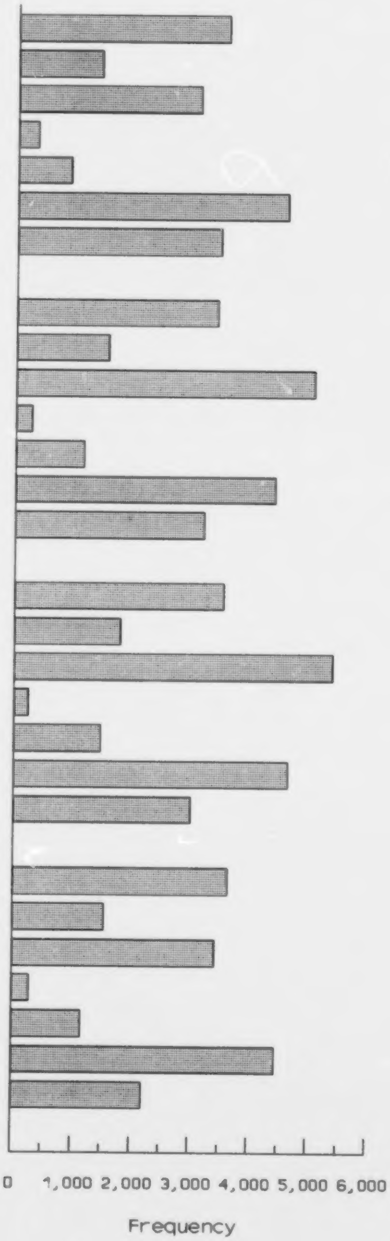
For the PARS accuracy data pairs, 6.6% (1,270 of 19,213) were outside the CFR specified range for audit levels; this is up from the 4.3% reported for 1987 (3). The distribution of the nonconforming accuracy data pairs was (with 1987 totals in parentheses): particulate (TSP and PM-10) - 838 (0); Pb - 181 (0); SO_2 - 131 (297); CO - 113 (240); O_3 - 60 (146); NO_2 - 47 (98).

(Note: The NPAP data was checked for validity prior to entry into the data set.)

While the distributions of nonconforming PARS data pairs for both accuracy and precision appear to differ between 1987 and 1988, the reason(s) is (are) not clear. This report concentrates on the 1988 data set and does not explore this difference between years further.

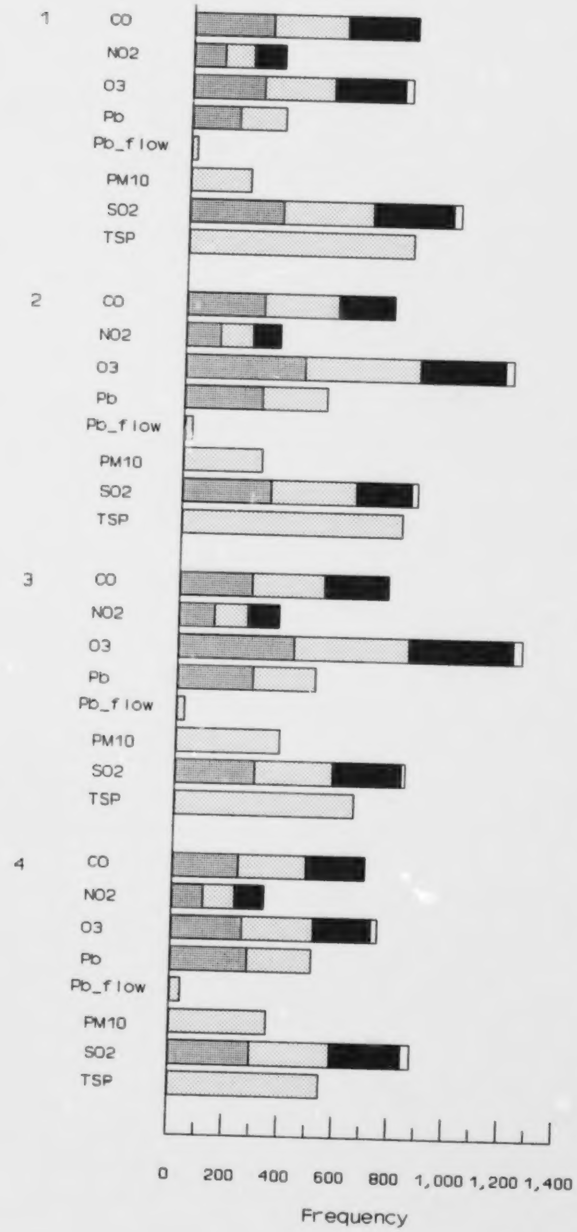
Figures 1 and 2 display the distributions of PARS data pairs used in calculating precision and accuracy probability limits.

Figure 1. Distribution of Individual Precision Checks for 1988 PARS Data



Quarter	Pollutant	Frequency	Cumulative Frequency	Percent	Cumulative Percent
1	CO	3572	3572	4.9	4.9
	NO2	1417	4989	1.9	6.8
	O3	3101	8090	4.2	11.0
	Pb	341	8431	0.5	11.5
	PM10	902	9333	1.2	12.7
	SO2	4595	13928	6.3	19.0
	TSP	3455	17383	4.7	23.7
2	CO	3404	20787	4.6	28.4
	NO2	1561	22348	2.1	30.5
	O3	5068	27416	6.9	37.4
	Pb	268	27684	0.4	37.8
	PM10	1153	28837	1.6	39.4
	SO2	4405	33242	6.0	45.4
	TSP	3209	36451	4.4	49.7
3	CO	3541	39992	4.8	54.6
	NO2	1795	41787	2.4	57.0
	O3	5408	47195	7.4	64.4
	Pb	241	47436	0.3	64.7
	PM10	1465	48901	2.0	66.7
	SO2	4653	53554	6.3	73.1
	TSP	3000	56554	4.1	77.2
4	CO	3642	60196	5.0	82.1
	NO2	1547	61743	2.1	84.3
	O3	3425	65168	4.7	88.9
	Pb	289	65457	0.4	89.3
	PM10	1160	66617	1.6	90.9
	SO2	4459	71076	6.1	97.0
	TSP	2205	73281	3.0	100.0

Figure 2. Distribution of Individual Accuracy Audits for 1988 PARS Data



Quarter	Pollutant	Frequency	Cumulative Frequency	Percent	Cumulative Percent
1	CO	813	813	4.5	4.5
	NO2	330	1143	1.8	6.4
	O3	798	1941	4.4	10.8
	Pb	338	2279	1.9	12.7
	Pb_flow	20	2299	0.1	12.8
	PM10	217	2516	1.2	14.0
	SO2	989	3505	5.5	19.5
	TSP	818	4323	4.6	24.1
2	CO	754	5077	4.2	28.3
	NO2	342	5419	1.9	30.2
	O3	1195	6614	6.7	36.9
	Pb	516	7130	2.9	39.7
	Pb_flow	28	7158	0.2	39.9
	PM10	284	7442	1.6	41.5
	SO2	856	8298	4.8	46.2
	TSP	801	9099	4.5	50.7
3	CO	758	9857	4.2	54.9
	NO2	362	10219	2.0	57.0
	O3	1250	11469	7.0	63.9
	Pb	499	11968	2.8	66.7
	Pb_flow	26	11994	0.1	66.8
	PM10	374	12368	2.1	68.9
	SO2	835	13203	4.7	73.6
	TSP	648	13851	3.6	77.2
4	CO	696	14547	3.9	81.1
	NO2	332	14879	1.9	82.9
	O3	746	15625	4.2	87.1
	Pb	509	16134	2.8	89.9
	Pb_flow	36	16170	0.2	90.1
	PM10	351	16521	2.0	92.1
	SO2	875	17396	4.9	97.0
	TSP	547	17943	3.0	100.0

PERCENT DIFFERENCE FORMULAE AND OUTLIER CRITERIA

Precision and accuracy data are characterized in terms of "percent difference." The appropriate formula for percent difference depends on whether the data are for precision or accuracy and whether the instruments are automated or manual.

The difference between precision data pairs from collocated manual instruments (TSP, PM-10, and Pb) are expressed as a percentage of their average using the formula:

$$D_m (\%) = 2(Y-X) / (Y+X) * 100$$

where Y is the indicated value and X is the designated value. The theoretical scale of D_m is from -200% to 200%.

For precision data pairs and accuracy data pairs from automated instruments and flow rate audits from manual instruments, the formula for percent difference is:

$$D_a (\%) = (Y-X) / X * 100$$

where the difference between the indicated value (Y) and the designated value (X) is expressed as a percentage of X. The theoretical range of D_a is -100% to infinity.

The individual percent differences are used to form weighted averages, pooled standard deviations, and 95% probability limits. The probability limits are computed by combining the averages and standard deviations in a particular way. The formulae for the percent differences, weighted averages, pooled standard deviations, and 95% probability limits are all specified by 40 CFR Part 58, Appendix A (1). The formation of the 95% probability limits assumes that the percent differences are normally distributed and that variances are the same within the units being combined (e.g., equal variances across sites within a reporting organization).

The same criteria adopted by Suggs (3) were used to screen the data for outliers. Thus, percent differences larger in size than 60% for precision data and manual sampler flow rate audits and 80% for accuracy data were not used in the calculations presented here. Since they may be indicative of problems and may be relevant to decisions regarding attainment of short-term standards, those observations eliminated as outliers are listed in Appendix A. While the number of outliers for each pollutant in the PARS data sets was similar in 1987 and 1988, two years of data are insufficient to determine whether these observed numbers of extreme values are "typical."

For the nation as a whole, Appendix B presents basic summary statistics (e.g., arithmetic mean, median, standard deviation) of the percent differences for both accuracy and precision data. Included as part of the summary statistics are three pictorial representations of the data: histogram (or stem and leaf plot), box plot, and normal probability plot. Individual percent differences were grouped by pollutant (and level for accuracy data). All computer programming for this report was done utilizing the SAS programming language (4,5,6).

SECTION 3

DATA ANALYSIS

ANALYSIS OF PRECISION AND ACCURACY DATA

A goal of this report is to assess the overall effectiveness of quality assurance programs administered by the states and local agencies. The use of 95% probability limits for this purpose rests upon the assumptions which were required for their calculation. Suggs (3) well describes the importance of these assumptions in the report for the 1987 PARS data. Rather than repeat his discussion here, the reader is referred to that report.

The analysis done here closely parallels that done by Suggs (3). The data has a nested structure (i.e., sites within reporting organizations within states within regions) and replicated by quarters; for the precision data, the biweekly measurements provide repeated sampling. The analysis of the 1988 data matched that of the 1987 data in that: "The approach used ... began with the basic subgroup of sites (accuracy data) and biweekly samples (precision data) and worked up the hierarchical structure and across quarters." (3)

The analysis presented here differs from that done on the 1987 data in the following way. For the 1987 data, Suggs (3) used Bartlett's test to determine whether variances were homogeneous across groups (e.g., sites within reporting organizations). The analysis presented here used a modification of a test first proposed by Levene (7) and subsequently extended by Draper and Hunter (8) and modified by Brown and Forsythe (9). In the statistical literature the test is referred to as Levl:med and has generally been found to perform well with regard to size and power in comparison to other methods (10,11). The significance level used in this report was 5%.

Briefly, Levl:med works as follows: (1) within each subgroup form the quantities $Z_{ij} = | x_{ij} - x_{j,med} |$, where x_{ij} is the i^{th} observation (in the case here, percent difference) in the j^{th} subgroup and $x_{j,med}$ is the corresponding median value; then (2) test for homogeneity by doing a standard one-way ANOVA F-test on the Z_{ij}'s. As has been noted by others (9,10), Levl:med is not strictly a test of equality of variances but of dispersion or spread in general.

One problem with Levl:med in the above form is that it is too conservative for small ($n < 8$), odd sample sizes. This results from values of zero for Z_{ij} distorting the F test statistic. Remedies for this have been proposed. O'Brien (12) suggested randomly deleting an observation in such cases; Conover et al. (10) recommended deleting the middle observation; Boos and Brownie (11) used bootstrapping with a trimmed mean. Rather than discarding a data point in such small samples, a different adjustment was made here. Z_{ij} was calculated as above except when $x_{ij} = x_{j,med}$; in this instance, $x_{j,med}$ was replaced by the median of the subgroup with x_{ij} removed. While this does not completely cure the problem, it does provide a measure of relief while still retaining all the original data.

An advantage to using Levl:med as opposed to Bartlett's test is that one is allowed to postpone the assumption of normality until the probability limits are actually computed. Bartlett's test is sensitive to the normality assumption (13), and thus the tests for variances are entwined with questions of normality.

Unfortunately, with only 6 or 7 biweekly precision values per site per quarter and generally data from at most four levels at one site per quarter per reporting organization for accuracy data, the PARS data set is not suitable for checking the normality assumption. (The NPAP accuracy data set contained even fewer data points.) Levl:med does not require normality of the underlying distributions, and hence avoids this concern.

PRECISION RESULTS

The precision data analysis was begun by aggregating sites to the reporting organization level by quarter and then across quarters. This was repeated through the state and regional levels.

Appendix C displays the weighted averages, pooled standard deviations, and 95% probability limits of the percent differences for those cases where the test for equality of variances (strictly speaking, dispersion) indicated no heterogeneity. Results for the other cases are not presented since this could be misleading.

Tables C-1, C-3, and C-5 list by quarter the results for reporting organizations, states, and regions, respectively. Inclusion in these tables indicates a consistent execution of the quality assurance program for the given quarter within that reporting organization, state, or region. Examination of these tables also shows for those groups listed that in general the results of the program were quite good in 1988; the vast majority of average percent differences are less than, and a great many are well below, 10% in magnitude. At the reporting organization level (Table C-1), the size of the average percent difference exceeded 10% in only a few instances - once for O_3, three times for PM-10, twice for SO_2, and once for TSP. At the state level (Table C-3) this occurred only once (for PM-10) and did not happen for any of the regions listed (Table C-5).

Tables C-2, C-4, and C-6 list the results for all quarters combined for reporting organizations, states, and regions, respectively. Inclusion in these tables indicates a consistent execution of the quality assurance program throughout the year within that reporting organization, state, or region. As was the case when viewed by quarters, these tables show that for those groups listed the performance of the program on an annual basis was also good. In fact, only two reporting organizations in Table C-2 (both for PM-10) had average percent differences exceeding 10% for the year; no states (Table C-4) or regions (Table C-6) listed had averages over 10% in size. At each level, the averages were generally well below 10% over the year.

(Note: To appear in Tables C-3 or C-4, a state needed to have more than one reporting organization. States with only one reporting organization would appear in Tables C-1 and C-2.)

Table 1 provides the percentages of the reporting organizations, states, and regions which entered the tables in Appendix C. Table 1 indicates that as the level of aggregation increased either geographically or temporally the percentage of cases where homogeneity occurred declined; that is, as one combined either larger geographic areas or blocks of time, the difficulty of consistently executing the quality assurance program increased.

Table 1. Percentage of Cases with Homogeneous Dispersion for PARS Precision Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

A. Reporting organizations across sites by quarter

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	274	155	293	17	95	287	297
S	167	118	196	16	77	195	250
%	61	76	67	94	81	68	84

B. Reporting organizations across sites and quarters

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	80	48	98	16	47	87	103
S	34	32	62	12	37	49	76
%	43	67	63	75	79	56	74

C. States across reporting organizations by quarter

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	78	47	71	20	68	66	76
S	35	28	43	16	51	28	40
%	45	60	61	80	75	42	53

D. States across reporting organizations and quarters

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	23	13	21	8	20	18	22
S	4	4	10	5	9	6	4
%	17	31	48	63	45	33	18

Table 1. Percentage of Cases with Homogeneous Dispersion for PARS Precision Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

E. Regions across states by quarter

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	40	28	39	22	35	36	39
S	4	8	10	11	20	12	25
%	10	29	26	50	57	33	64

F. Regions across states and quarters

	CO	NO_2	O_3	Pb	PM-10	SO_2	TSP
N	10	7	10	8	9	9	10
S	1	0	1	3	1	2	3
%	10	0	10	38	11	22	30

ACCURACY RESULTS

The accuracy data analysis was done in an analogous manner to that for the precision data. The nature of the data necessitated one difference. Generally, the accuracy data was very sparse within quarters for the PARS data (often only one site in a reporting organization); for the NPAP data, usually only one value was available for the year. The accuracy measurements are made at (1 to 4) different levels. Therefore, accuracy data was aggregated to the reporting organization, state, and regional scales across quarters; the analyses were performed by audit level separately and also across audit levels.

Appendix D presents the weighted averages, pooled standard deviations, and 95% probability limits of the percent differences for those cases where the test for equality of dispersion indicated no heterogeneity for the PARS data. Again, display of the other cases could be misleading. Table 2 gives the percentages of the reporting organizations, states, and regions which entered the tables in Appendix D.

Tables D-1, D-3, and D-5 list by audit level the results for reporting organizations, states, and regions, respectively. Inclusion in these tables indicates consistency in executing the quality assurance program at the indicated audit level within that reporting organization, state, or region. Those groups listed display, in general, a very good quality assurance program for accuracy. The overwhelming majority have average percent differences less than 10% in magnitude (with many well below). For the reporting organizations (Table D-1), the size of the average percent difference exceeded 10% only rarely - three times for CO at audit level 1 and once at level 2, twice for NO_2 at audit level 1, and once each for SO_2 at audit levels 1, 2, and 3. At the state (Table D-3) and regional (Table D-5) levels, no average was outside the range (-10%, 10%).

Tables D-2, D-4, and D-6 display the accuracy results across audit levels. Inclusion in these tables indicates a consistently executed quality assurance program over all audit levels. In none of the cases appearing in these tables did the average percent difference exceed 10% in magnitude, and again most were well below this level.

The results for the NPAP data set are presented in Appendix E and Table 3. As with the PARS data, where the NPAP program was consistently executed the percent differences were not generally large (Appendix E). However, the percentages of groupings which maintained consistency varied between PARS and NPAP (Tables 2 and 3). Comparison of the PARS and NPAP networks is deferred to section 4, where data from collocated sites is analyzed.

In addition to the results displayed in Appendices D and E, the accuracy data was also analyzed with a regression approach. Linear regression was attempted as a means of assessing the overall performance of the accuracy program by examining the network on a site-by-site basis. Unfortunately, the regressions at the individual sites suffered from a lack of data; often only 3 data points were available. The limited amount of data reduced the power of the regressions and prevented adequate checking of the basic regression assumptions (i.e., normally distributed error terms with homogeneous variances). Therefore, the results of the regression analysis should not be viewed as firm conclusions, but as general indicators of where future efforts might best be directed.

The measured value was regressed on the audit (target) value on a site-by-site basis, and the resulting regression line was compared to the "ideal" line which has a slope of one and passes through the origin. (For ease of interpretation, measured values, as opposed to percent differences, were used.) Regressions were only done in cases where more than two data points were available.

The comparison to the ideal line was done by making the joint hypothesis test that the intercept estimated by the regression was 0 and that the estimated slope was 1. It may be useful to consider the interpretation of these estimated parameters. While theoretically the intercept is the value that would be measured if no pollutant were present, the estimated intercept is best viewed here as an indicator of the general bias of the measurement process over the range of values established by the audit levels. (This is because audit levels are necessarily set at positive values, and thus no data are available about the measurement process at a pollutant level of zero.)

The slope indicates how the accuracy measurement depends on audit level. A slope of zero would indicate that a sampler reports numbers essentially independently of what the true pollutant levels are; a slope between zero and 1 indicates that the sampler does not increase its reported value fast enough as pollutant level increases, while a slope value greater than 1 indicates that reported values increase too rapidly; a slope of 1 says that as the pollutant level changes, the machine responds with exactly the same change in its reported value.

Table 4 indicates the overall results of the regressions. Given that the joint hypothesis tests were all conducted at the 5% level, one could expect that the hypothesis would be falsely rejected in 5% of the cases examined. (Note: The joint hypothesis may be rejected because either or both estimated parameters may be too far from its "ideal" value.) Each percentage in Table 4 exceeds this. However, in judging the effectiveness of the quality assurance program, the columns for the intercept and slope are more relevant since they indicate the degree to which the parameters depart from their ideal values.

The column for the intercept (b_0) in Table 4-A indicates that in general there does not appear to be a large overall bias in the accuracy measurements for CO, NO_2, O_3, or SO_2 in the PARS network. (Although CO, O_3, and SO_2 exhibit some relatively large (say, > 2) values in the b_0 column, these are isolated instances.) Similarly, the NPAP data does not show a large bias for CO or Pb (Table 4-B). Of more concern are the figures for Pb in the PARS results. For this pollutant intercepts were estimated which were quite large in magnitude, both positive and negative, in several cases. The slope (b_1) column in Table 4 indicates that in general the estimated slopes were within 10% to 20% of their ideal value of 1.

In summary, then, the regression results indicated that for CO, NO_2, O_3, and SO_2, accuracy audits generally conformed to the desired results. For Pb, there may have been some bias in the accuracy audit results at certain sites in the PARS network. (Note: Accuracy audits for TSP and PM-10 were only done at one level, and regression was therefore inappropriate in these cases.)

Table 2. Percentage of Cases with Homogeneous Dispersion for PARS Accuracy Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

A. Reporting organizations across sites and quarters by level

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	150	83	166	29	5	54	157	84
S	90	48	105	24	3	38	94	52
%	60	58	63	83	60	70	60	62

B. Reporting organizations across sites, quarters, and levels

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	78	46	92	17	5	54	88	84
S	63	40	69	14	3	38	62	52
%	81	87	75	82	60	70	70	62

C. States across reporting organizations and quarters by level

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	61	37	61	22	1	20	55	20
S	46	33	54	12	1	15	47	15
%	75	89	89	55	100	75	85	75

D. States across reporting organizations, quarters, and levels

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	22	14	21	11	2	20	19	20
S	15	10	5	4	2	15	11	15
%	68	71	24	36	100	75	58	75

Table 2. Percentage of Cases with Homogeneous Dispersion for PARS Accuracy Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

E. Regions across states and quarters by level

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	30	18	29	14	3	9	30	8
S	12	16	14	6	3	4	23	3
%	40	89	48	43	100	44	77	38

F. Regions across states, quarters, and levels

	CO	NO_2	O_3	Pb	Pb flow	PM-10	SO_2	TSP
N	10	6	10	7	3	9	9	8
S	1	5	4	4	3	4	2	3
%	10	83	40	57	100	44	22	38

Table 3. Percentage of Cases with Homogeneous Dispersion for NPAP Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

A. Reporting organizations across sites and levels

	CO	Pb	Pb flow	PM-10	TSP
N	59	0	0	0	0
S	53	0	0	0	0
%	90	0	0	0	0

B. States across reporting organizations by level

	CO	Pb	Pb flow	PM-10	TSP
N	44	22	0	5	19
S	24	3	0	2	15
%	55	14	0	40	79

C. States across reporting organizations and levels

	CO	Pb	Pb flow	PM-10	TSP
N	20	11	0	5	19
S	16	11	0	2	15
%	80	100	0	40	79

D. Regions across states by level

	CO	Pb	Pb flow	PM-10	TSP
N	27	27	1	9	9
S	22	12	0	8	5
%	81	44	0	89	56

Table 3. Percentage of Cases with Homogeneous Dispersion for NPAP Data

Key:
N = Total number possible
S = Number meeting homogeneity criterion
% = Percentage to nearest whole percent

E. Regions across states and levels

	CO	Pb	Pb flow	PM-10	TSP
N	10	10	1	9	9
S	6	7	0	8	5
%	60	70	0	89	56

Table 4-A. Results of PARS Accuracy Regressions

Pollutant	Total Regressions	Significant	%	b_0	b_1
CO	393	132	34	(-1.4,5.3)	(.89,1.1)
NO_2	185	59	32	(-.01,0.1)	(.80,1.1)
O_3	518	177	34	(-6.9,2.4)	(.79,1.1)
Pb	77	39	51	(-31 , 49)	(.62,1.1)
SO_2	455	143	31	(-13 , 54)	(.83,1.2)

Table 4-B. Results of NPAP Regressions

Pollutant	Total Regressions	Significant	%	b_0	b_1
CO	227	42	19	(-1.1,1.0)	(.94,1.3)
Pb	65	13	20	(0.0,.15)	(.88,1.1)

Note: The significance column gives the number of cases for which the joint hypothesis of intercept=0 and slope=1 was rejected. The columns b_0 and b_1, give the range of estimates for the intercept and slope, in cases where the hypothesis was rejected.

NATIONAL RESULTS

If the assumption is made that the percent differences summarized in Tables B-1 and B-2 were taken from the same normal population for a given pollutant (and level), then annual probability limits could be calculated on a national basis, as shown in Tables 5 and 6. However, the earlier results displayed in Tables 1, 2, and 3 indicate that variance (or dispersion) is not uniform across the country. In addition, the tables in Appendix B lead to the conclusion that the assumption of normality is probably incorrect.

An alternative method of examining the data which makes no assumptions about the underlying statistical distribution(s) is provided in Tables 7 and 8. These tables are abstracted from the tables of Appendix B, and the data is simply examined "as it comes." (The nth percentile is that value such that n% of the data were less than or equal to it. Note that the 5th and 95th percentiles bracket the middle 90% of the data.)

While the normality assumption may not be appropriate, the distributions of the percent differences for both precision and accuracy data generally appear to be unimodal and symmetric (Appendix B), and thus the means and medians are quite similar (Tables 7 and 8).

For the precision data, the ranges established by the 95% probability limits (Table 5) and the 5thand 95thpercentiles (Table 7) are very similar for each pollutant. However, this is not quite the case for the accuracy data (Tables 6 and 8). The accuracy data show these exceptions: the percentile spread is wider than the probability limits for NO_2 and narrower for O_3 at level 4 in the PARS data and is narrower for lead and TSP in the NPAP data. These observations (except O_3 at level 4 in PARS and Pb and TSP in NPAP for the accuracy data) indicate that the violations of the assumptions necessary for calculating the probability limits leads to an underestimate of the amount of data in the tails (i.e., farther reaches) of the distributions.

Table 7 shows that the middle 90% of the precision percent differences occurred roughly within the range of (-10%, 10%) for CO, NO_2, O_3, and SO_2. For Pb the range was roughly (-20%,20%), and the spreads for PM-10 and TSP were broader than for the gases but less than for lead.

Table 8 indicates that the percent differences for the accuracy data tended to be larger at the lowest audit level. (Note the larger widths between the 5th and 95thpercentiles at these lowest levels.) The widest spread of the middle 90% of the accuracy percent differences is the range from -12% to 23% (for the NPAP PM-10 data).

Thus, on a national scale, the precision and accuracy quality assurance programs seem to be operating well, in general.

METHOD RESULTS

Tables F-1 and F-2 (Appendix F) provide weighted averages, pooled standard deviations, and 95% probability limits on a national basis for individual methods used in the PARS network. Since the data were not gathered with the intention of comparing methods, no statistical interpretation is given. Within-site variances for precision data were pooled across all sites with a common method regardless of location or time of year, or whether or not the variances were homogeneous. An observation from Table F-2 is that variability appears to be larger at the lowest accuracy audit level, based on the wider probability limits generally observed there.

Table 5. National Probability Limits for PARS Precision Data

Pollutant	N	Mean (%)	Standard Deviation	Lower 95% prob. limit	Upper 95% prob. limit
CO	14143	-0.03	3.42	-6.74	6.68
NO_2	6294	-0.67	5.41	-11.27	9.93
O_3	16980	-0.84	4.14	-8.95	7.28
Pb	1108	-0.15	13.28	-26.19	25.88
PM-10	4634	0.84	8.73	-16.26	17.94
SO_2	18087	-1.09	4.28	-9.47	7.29
TSP	11839	0.09	7.76	-15.13	15.31

Note: In calculating the 95% probability limits, the variance homogeneity and normality assumptions are not met on a national basis. (See text.)

Table 6-A. National Probability Limits for PARS Accuracy Data

Pollutant	Level	N	Mean (%)	Standard Deviation	Lower 95% prob. limit	Upper 95% prob. limit
CO	1	1006	-0.03	5.51	-10.82	10.77
	2	1050	0.38	2.79	-5.09	5.84
	3	895	0.24	2.97	-5.57	6.05
	4	7	1.97	0.14	1.69	2.24
NO_2	1	473	0.40	4.83	-9.07	9.87
	2	458	0.01	3.66	-7.16	7.18
	3	420	-0.47	4.34	-8.99	8.04
	4	15	0.58	1.66	-2.68	3.83
O_3	1	1364	-0.82	5.57	-11.74	10.09
	2	1349	-0.58	3.64	-7.71	6.55
	3	1161	-0.75	4.58	-9.73	8.24
	4	114	-2.64	8.75	-19.78	14.50
Pb	1	1000	0.11	5.07	-9.83	10.05
	2	856	-0.99	4.59	-9.97	8.00
Pb-flow	1	3	-2.09	1.41	-4.85	0.67
	2	107	0.57	3.25	-5.80	6.95
PM-10	2	1226	-0.05	3.05	-6.04	5.94
SO_2	1	1235	-0.14	5.38	-10.69	10.41
	2	1211	-0.10	4.91	-9.73	9.53
	3	1003	-0.44	5.13	-10.50	9.62
	4	101	-0.62	4.27	-8.99	7.75
TSP	2	2814	0.56	3.22	-5.75	6.87

Note: In calculating the 95% probability limits, the variance homogenieity and normality assumptions are not met on a national basis. (See text.)

Table 6-B. National Probability Limits for NPAP Data

Pollutant	Level	N	Mean (%)	Standard Deviation	Lower 95% prob. limit	Upper 95% prob. limit
CO	1	232	-0.62	5.65	-11.69	10.45
	2	229	1.85	3.81	-5.63	9.33
	3	231	2.18	3.54	-4.75	9.11
Pb	1	113	-2.50	10.68	-23.43	18.43
	2	115	3.96	10.98	-17.56	25.49
	3	114	-2.52	10.10	-22.31	17.27
Pb-flow	2	23	4.46	7.09	-9.44	18.36
PM-10	2	133	1.18	10.12	-18.65	21.02
TSP	2	511	2.29	9.45	-16.22	20.81

Note: In calculating the 95% probability limits, the variance homogenieity and normality assumptions are not met on a national basis. (See text.)

Table 7. National Percent Difference Percentiles for PARS Precision Data

Pollutant	N	Mean	Median	5th Percentile	95th Percentile
CO	14143	0	0	-7	8
NO_2	6294	-1	0	-13	10
O_3	16980	-1	0	-9	7
Pb	1108	0	0	-22	23
PM-10	4634	1	0	-13	18
SO_2	18087	-1	-1	-10	8
TSP	11839	0	0	-13	13

Table 8-A. National Percent Difference Percentiles for PARS Accuracy Data

Pollutant	Level	N	Mean	Median	5th Percentile	95th Percentile
CO	1	1006	0	0	-10	12
	2	1050	0	0	-5	7
	3	895	0	0	-5	6
	4	7	2	2	0	3
NO_2	1	473	0	0	-14	15
	2	458	0	0	-10	10
	3	420	0	0	-10	8
	4	15	1	-1	-4	7
O_3	1	1364	-1	0	-11	9
	2	1349	-1	-1	-8	6
	3	1161	-1	0	-8	6
	4	114	-3	-2	-9	2
Pb	1	1000	0	0	-10	11
	2	856	-1	0	-8	6
Pb-flow	1	3	-2	-3	-4	1
	2	107	1	0	-5	6
PM-10	2	1226	0	0	-6	6
SO_2	1	1235	0	0	-11	11
	2	1211	0	0	-9	9
	3	1003	0	-1	-10	9
	4	101	-1	0	-8	9
TSP	2	2814	1	0	-5	6

Table 8-B. National Percent Difference Percentiles for NPAP Data

Pollutant	Level	N	Mean	Median	5th Percentile	95th Percentile
CO	1	232	-1	0	-8	8
	2	229	2	2	-3	7
	3	231	2	2	-2	7
Pb	1	113	-3	-1	-18	7
	2	115	4	5	-13	16
	3	114	-3	-2	-12	7
Pb-flow	2	23	4	2	-4	24
PM-10	2	133	1	0	-11	23
TSP	2	511	2	2	-10	15

SECTION 4

COMPARISON OF THE 1988 PARS AND NPAP DATA

Some sites had data from both the NPAP and PARS programs. Using this collocated data, the two networks were compared. The quantities examined were the accuracy percent differences for CO, Pb flow rate, PM-10, and TSP. (Coding uncertainties prevented the comparison of NPAP and PARS Pb measurements.) Generally, there was only one NPAP observation at a site (or, for CO, a level). (The exceptions to this were that two observations occurred at three sites for PM-10 and two sites for TSP.) Generally, there were two or more PARS observations at a site (or level), but in some cases there was also only one PARS value.

First, the NPAP observations were examined to see whether the NPAP value was above, below, or within the range of the PARS values. This was done on a site by site (and, for CO, level by level) basis. Table 9 displays the results for those cases where more than one PARS value was available, and Table 10 gives the above and below counts when only one value occurred for each network. (The results for the sites with two NPAP values were: one NPAP PM-10 value was below and five above the PARS range; and two NPAP TSP values were within and two above the PARS range.)

A first glance at Tables 9 and 10 would seem to indicate that the NPAP percent differences tend to be higher than the PARS numbers. However, the data can be explored a bit more deeply.

Binomial tests on the counts in Table 10 indicate that the NPAP values are evenly split between the above and below categories for level 1 of CO and for PM-10; however, there are significantly more above occurrences for levels 2 and 3 of CO and TSP. The significance level used was 5%.

The data summarized in Table 9 were examined to see whether (in each individual case) the NPAP value was so far removed from the PARS values as to be considered to have come from a different distribution. Dixon's r_{10} outlier test was used (14, 15).

The null hypothesis was that for each individual case the PARS and NPAP values came from a single normal distribution. First, the ratio of the difference between the NPAP value (when it was the highest or lowest value) and the closest PARS value to the range of all values was formed. A p-value was then either calculated from a formula or linearly interpolated from a table provided by Dixon (15). (Cases where all PARS values were the same were excluded since in such a case, the test automatically would declare the NPAP value an outlier, no matter how close it was to the PARS value. There were very few such cases.)

Table 9. Counts of Where the Single NPAP Value Was Located Relative to the PARS Range.

Pollutant	Below	Within	Above	Total
CO				
level 1	35	74	34	143
level 2	20	61	58	139
level 3	10	42	67	119
Pb-flow	0	0	4	4
PM-10	12	24	23	59
TSP	34	94	94	222

Table 10. Counts of Where the Single NPAP Value Was Located Relative to the Single PARS Value.

Pollutant	Below	Above	Total
CO			
level 1	19	27	46
level 2	12	32	44
level 3	20	37	57
Pb-flow	0	1	1
PM-10	11	14	25
TSP	62	87	149

Table 11 shows the number of times a significant result was obtained from this procedure at the 5% level. This table indicates that generally NPAP percent differences are in agreement with PARS percent differences for accuracy measurements on a case by case basis.

These results for the individual sites or levels were expanded to a network basis by using Fisher's method of combining tests (16). Combining the individual test results allows a comparison of the overall NPAP and PARS networks based on collocated data. Fisher's method has good statistical power (17, 18) and may detect differences which were hidden because the individual tests were based on so few data points. Basically, Fisher's method transforms the p-values from the individual tests and adds them to obtain a chi square distributed test statistic.

(Note: In applying Fisher's method, one potential difficulty was - What p-value should be assigned in cases where the NPAP value was within the range of the PARS values? In such a case, one would think it unlikely that the PARS and NPAP networks were different, and a p-value near 1 is reasonable. As it happened, the question of "How near?" was of no consequence for the tests done here.)

The results from combining the individual tests were that only for PM-10 were the NPAP values different from the PARS values. The difference was significant at the 5% level, but not at the 1% level. (This statement takes into account the cases for which the NPAP value was inside the range of the PARS values.)

The fact that CO values were available from three levels permitted a different method of comparing the two networks. At each site, the percent difference values from both networks together were linearly regressed on level, and the regression diagnostic Cook's D (19) was calculated for each point. Cook's D basically measures how strongly a single data point affects the estimated regression parameters; it has approximately an F distribution with (for the regressions done here) 2 degrees of freedom for the numerator and n-2 for the denominator.

If the NPAP and PARS values were at odds with each other, then one might expect that the NPAP data would have a large influence on the regressions. The question of how large an influence should an NPAP point have to be considered "different" from the PARS values requires a subjective decision. A Cook's D value equal to the 50th percentile value of the corresponding F distribution would indicate that the parameter estimates without that data point would lie roughly on the 50% confidence ellipsoid about the estimates using all data; while it may be argued that a smaller shift should be considered major, most would agree that the 50% criterion indicates a significant influence. This 50% level for use with Cook's D has been suggested by others (20, 21), and it was adopted here for inspecting the influence of the NPAP points on the regressions.

Table 11. Number of Outlier Tests Significant at the 5% Level.

Pollutant	Number of tests	No. significant	%
CO			
level 1	137	1	1
level 2	136	9	7
level 3	118	5	4
Pb flow	4	1	25
PM-10	59	7	12
TSP	217	16	7

Of the 197 CO regressions performed, only 13 NPAP data points had Cook's D statistics exceeding the 50th percentile value of the appropriate F distribution. Thus, based on this examination of regression diagnostics, it does not appear that the PARS and NPAP CO percent differences are substantially different.

In summary, then, there do not seem to be large differences between the NPAP and PARS data sets. One possible exception to this is the case of PM-10. Overall, NPAP PM-10 percent differences appeared to be higher than PARS values at the 5% significance level; however, under the more stringent criterion of a 1% significance level, there is not a significant difference between the two networks.

SECTION 5

SUMMARY

Slightly more than 8% of the PARS precision data pairs were outside the CFR guideline limits. Ambient lead levels accounted for the largest number of the nonconforming pairs; particulate (TSP and PM-10) and SO_2 data pairs also represented large percentages of the nonconforming precision data pairs.

For the PARS accuracy data pairs, 6.6% were outside the CFR specified range for audit levels. Particulate (TSP and PM-10) data contributed most to this percentage.

For both precision and accuracy data, in those cases where the quality assurance program (PARS or NPAP) was consistently executed across different strata of the network (e.g., geographic region, quarter, or audit level), the performance was generally good. Only rarely did weighted average percent differences exceed 10% in magnitude when data were combined across strata, and often the average level was well below 10% in size.

Regression applied on a site-by-site basis to the accuracy data indicated that for CO (PARS and NPAP), NO_2, O_3, and SO_2, accuracy audits generally were not biased to any large degree over the range of pollutant levels established by the audit levels and generally instruments responded well as pollutant levels varied. For Pb, there may have been some bias in the accuracy audit results at certain PARS sites. However, the nature of the data limited the utility of the regressions, and these results should be viewed only as rough indicators of the state of the accuracy quality assurance program.

On a national basis, the middle 90% of the PARS precision percent differences occurred roughly within the range of (-10%, 10%) for CO, NO_2, O_3, and SO_2. For Pb the range was roughly (-20%,20%), and the spreads for PM-10 and TSP were broader than for the gases but less than for lead. Nationally, the percent differences for the PARS and NPAP accuracy data tended to be larger at the lowest audit level. The widest spread of the middle 90% of the accuracy percent differences is the range from -12% to 23% (for PM-10 in NPAP data). Thus, on a national scale, the precision and accuracy quality assurance programs seem to be operating well, in general.

Based on analyses of collocated data, there do not seem to be large differences between the NPAP and PARS data sets. One possible exception to this is the case of PM-10.

Taken together, the results above indicate that the quality assurance programs for accuracy and precision generally seem to be operating well, though there may be pockets which could be improved.

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APPENDIX A

EXTREME VALUES

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
3	PA	1	420730015	51	7	2	4	4	10000.0	9.300	107427
3	PA	2	420030052	54	7	3	8	30	0.1	8.178	-98
3	PA	2	420030052	54	7	4	11	15	0.8	8.172	-90
9	CA	1	60190241	51	7	3	8	9	3.2	9.500	-66
9	CA	1	60290232	8	7	2	6	5	19.6	10.000	96
9	CA	1	60290232	8	7	4	12	18	0.0	9.900	-100
9	CA	1	60670002	8	7	2	5	23	0.3	8.800	-97
9	CA	1	60670002	8	7	2	6	20	0.3	8.800	-97
9	CA	1	60830009	8	7	3	9	4	0.0	8.200	-100
9	CA	1	60830009	8	7	3	9	11	0.0	8.200	-100
9	CA	1	60870003	51	7	2	6	30	0.0	9.100	-100
9	CA	1	60990005	8	7	3	7	17	0.0	9.900	-100
9	CA	1	60990005	8	7	3	7	24	0.0	9.900	-100
9	CA	1	60990005	8	7	3	7	31	0.0	9.900	-100
9	CA	1	60990005	8	7	3	9	18	0.0	9.900	-100
9	CA	1	61072002	8	7	2	6	19	0.0	10.000	-100

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
3	DE	1	100032002	25	7	1	2	25	0.9	0.095	847
3	PA	1	420070014	22	7	2	5	27	10000.0	0.080	12499899
3	PA	1	420430401	22	7	2	4	14	10000.0	0.086	11627806
3	PA	1	420430401	22	7	2	4	27	10000.0	0.086	11627806
3	PA	1	420430401	22	7	2	5	12	10000.0	0.077	12986912
3	PA	1	420990301	22	7	2	6	6	10000.0	0.082	12195021
3	PA	1	420990301	22	7	2	6	13	10000.0	0.082	12195021
5	MI	2	261630029	25	7	3	7	11	0.0	0.092	-90
9	CA	1	60070002	35	7	2	5	15	0.0	0.102	-100
9	CA	1	60290004	35	7	2	5	1	0.0	0.097	-100
9	CA	1	60290004	35	7	3	7	10	0.0	0.097	-100
9	CA	1	60670001	35	7	2	6	5	0.1	0.086	60
9	CA	1	60670001	35	7	4	11	6	1.0	0.088	1059
9	CA	1	60670002	35	7	2	5	23	0.0	0.089	-71
9	CA	1	60670002	35	7	2	6	20	0.0	0.089	-100
9	CA	1	60670006	35	7	4	11	21	0.9	0.091	889
9	CA	1	60670006	35	7	4	12	5	0.0	0.091	-60
9	CA	1	60710001	35	7	4	11	14	0.0	0.090	-100
9	CA	1	60710012	42	7	3	7	25	0.0	0.090	-100
9	CA	1	60714001	35	7	4	11	22	0.0	0.098	-100

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
9	CA	1	60870003	35	7	2	4	6	0.0	0.088	-100
9	CA	1	61072002	35	7	1	1	17	0.2	0.095	75
9	CA	1	61072002	35	7	1	3	6	0.0	0.095	-100
9	CA	1	61110005	35	7	2	4	10	0.0	0.092	-100
9	CA	1	61110006	35	7	1	2	18	0.0	0.097	-100
9	CA	36	60730001	35	7	2	5	11	0.0	0.092	-100

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	NH	1	330111010	4	7	3	9	15	0.009	0.093	-90.32
8	CO	1	80131001	19	7	4	10	19	0.031	0.100	-69.00
8	CO	1	80131001	19	7	4	10	31	0.020	0.100	-80.00
8	CO	1	80131001	19	7	4	11	14	0.021	0.100	-79.00
9	CA	1	60070002	19	7	2	5	15	0.000	0.102	-100.00
9	CA	1	60070002	19	7	3	7	17	0.000	0.088	-100.00
9	CA	1	60170006	19	7	2	5	9	0.000	0.095	-100.00
9	CA	1	60190006	19	7	4	12	20	0.012	0.093	-87.10
9	CA	1	60190006	19	7	4	12	27	0.149	0.092	61.96
9	CA	1	60190241	19	7	3	9	20	0.000	0.075	-100.00
9	CA	1	60333001	19	7	2	5	27	0.000	0.096	-100.00
9	CA	1	60670002	19	7	2	5	23	0.026	0.089	-70.79
9	CA	1	60670002	19	7	2	6	20	0.000	0.089	-100.00
9	CA	1	60670006	19	7	2	4	11	0.000	0.091	-100.00
9	CA	1	60890006	19	7	3	7	19	0.000	0.089	-100.00
9	CA	1	60990005	19	7	3	8	14	0.012	0.096	-87.50
9	CA	1	60990005	19	7	3	9	4	0.011	0.097	-88.66
9	CA	1	60990005	19	7	3	9	11	0.010	0.097	-89.69
9	CA	1	60991003	19	7	4	10	23	0.010	0.096	-89.58
9	CA	1	60991004	19	7	4	12	25	0.000	0.084	-100.00
9	CA	1	61072002	19	7	1	3	6	0.000	0.095	-100.00
9	CA	1	61111003	19	7	2	4	21	9.097	0.097	9278.35

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = Pb

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
3	PA	1	420110717	43	1	2	6	2	10000.0	1.215	199.95
3	PA	1	420110717	43	1	2	6	8	10000.0	0.681	199.97
3	PA	1	420250105	43	1	2	4	15	10000.0	0.251	199.99
4	AL	11	11090003	803	1	3	8	7	4.2	1.640	88.05
4	AL	11	11090003	803	1	4	10	18	0.2	0.340	-61.54
4	AL	11	11090003	803	1	4	11	11	0.4	4.940	-172.13
4	AL	11	13240003	803	1	1	1	10	0.5	0.160	98.41
4	AL	11	13240003	803	1	1	1	22	0.2	0.500	-70.27
4	AL	11	13240003	803	1	2	4	21	0.7	0.230	102.13
4	AL	12	10731007	803	1	3	7	2	0.5	1.410	-87.76
5	OH	5	390910003	803	1	2	6	30	0.5	0.200	80.60
6	AR	1	51192001	803	1	3	8	25	0.2	0.870	-113.51
7	MO	1	290990005	803	1	2	4	27	1.4	0.690	65.37
7	MO	3	295100025	803	1	2	5	27	0.2	0.327	-73.64
7	MO	3	295100025	803	1	2	6	14	0.2	0.555	-79.25
7	MO	6	290930022	803	1	2	5	3	7.7	4.090	61.00
7	MO	7	290990005	803	1	2	5	9	0.5	0.254	73.00
7	MO	7	390990005	803	1	4	11	11	0.7	1.509	-78.16
8	MT	1	300490719	57	1	1	1	31	0.3	0.610	-77.27
8	MT	1	300490719	57	1	1	2	9	0.3	0.150	63.64
8	MT	1	300490719	57	1	2	4	9	1.300	0.680	61.9300
8	MT	1	300490719	57	1	3	7	23	1.300	0.620	70.1600
8	MT	1	300490719	57	1	3	8	22	3.300	1.670	65.0500
8	MT	1	300490719	57	1	3	8	28	5.800	2.980	64.7000
8	MT	1	300490719	57	1	3	9	6	2.100	7.020	-107.8900
8	MT	1	300490719	57	1	4	11	23	2.000	5.740	-96.2600
8	MT	1	2300490719	57	1	4	12	26	1.170	0.540	73.6842
9	CA	1	60290004	803	1	2	4	3	0.414	0.200	69.7068
9	CA	1	60290004	803	1	2	4	9	0.412	0.200	69.2810
9	CA	1	60290004	803	1	2	4	22	0.414	0.200	69.7068
9	CA	1	60290004	803	1	2	4	27	0.414	0.200	69.7068

POLLUTANT = PM10

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	CT	1	90091123	62	1	3	8	1	10000.0	52.0	197.93
1	CT	1	90091123	62	1	4	11	23	10000.0	55.0	197.81
1	CT	1	90092123	62	1	3	8	1	10000.0	40.0	198.41
1	CT	1	90092123	62	1	3	9	12	10000.0	24.0	199.04
1	ME	1	230031005	771	1	2	6	15	22.0	45.0	-68.66

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = PM10

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	ME	101	230051008	771	1	2	6	20	10000.0	53.0	197.89
3	DE	1	100031006	64	1	4	10	30	52.0	23.0	77.33
3	PA	1	420430306	702	1	1	1	28	10000.0	52.3	197.92
3	PA	1	420430306	702	1	2	4	15	60.5	10000.0	-197.59
3	PA	1	420430306	702	1	3	7	26	62.4	10000.0	-197.52
3	PA	1	420430306	702	1	3	8	31	10000.0	41.9	198.33
3	PA	1	420730015	64	1	1	2	15	10000.0	20.9	199.17
3	PA	1	420730015	64	1	2	5	15	10000.0	25.0	199.00
3	PA	1	420730015	64	1	3	7	2	10000.0	23.1	199.08
3	PA	1	420730015	64	1	3	8	19	26.6	10000.0	-198.94
3	PA	1	420730015	64	1	3	8	25	42.7	10000.0	-198.30
3	PA	1	420730015	64	1	3	8	31	27.6	10000.0	-198.90
3	PA	1	420730015	64	1	3	9	6	22.0	10000.0	-199.12
3	PA	1	420730015	64	1	3	9	18	35.2	10000.0	-198.60
3	PA	1	420730015	64	1	3	9	24	21.7	10000.0	-199.13
3	PA	1	420730015	64	1	3	9	30	61.0	10000.0	-197.57
3	PA	1	420850622	64	1	1	1	16	28.9	10000.0	-198.85
3	PA	1	420850622	64	1	1	3	10	10000.0	21.4	199.15
3	PA	1	420850622	64	1	1	3	16	10000.0	27.0	198.92
3	PA	1	420850622	64	1	1	3	28	29.5	10000.0	-198.82
3	PA	1	420850622	64	1	2	4	15	10000.0	21.8	199.13
3	PA	1	420850622	64	1	2	4	21	10000.0	51.0	197.97
3	PA	1	420850622	64	1	2	6	2	10000.0	27.5	198.90
3	PA	1	420850622	64	1	3	8	13	10000.0	81.6	196.76
4	AL	13	12380016	771	1	1	1	16	86.0	25.0	109.91
4	FL	12	120571035	65	1	1	1	10	20.0	38.0	-62.07
4	TN	1	471130004	771	1	2	6	14	23.0	59.0	-87.800
5	IN	100	180891019	62	1	3	9	18	25.0	50.0	-66.670
5	MI	1	261450001	771	1	4	11	17	21.0	55.0	-89.470
5	OH	3	391431005	771	1	3	8	1	68.0	27.0	86.320
5	OH	9	390350045	771	1	2	4	15	37.0	94.0	-87.020
6	NM	1	350090002	64	1	3	8	27	48.5	24.8	64.670
6	NM	1	350130016	63	1	2	6	8	158.9	68.7	79.260
6	NM	1	350150007	63	1	2	4	21	58.5	30.7	62.330
7	IA	3	190330014	771	1	1	2	3	54.3	22.7	82.080
7	IA	3	190450018	771	1	1	2	27	30.7	68.9	-76.710
7	NB	1	310250002	771	1	3	7	8	57.4	26.3	74.310
8	UT	1	490350012	771	1	2	5	27	40.0	83.0	-69.920
8	UT	1	490353001	771	1	1	2	3	67.0	25.0	91.304
9	CA	61	60716001	771	1	3	9	12	53.0	120.0	-77.457
10	WA	1	530630016	63	1	3	9	1	71.0	132.0	-60.099

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	ME	104	230172006	9	7	2	4	5	0.790	0.077	925.97
1	ME	104	230172006	9	7	2	4	26	0.780	0.077	912.99
3	DE	1	100032001	39	7	1	2	19	0.800	0.079	912.66
3	PA	2	420030002	39	7	4	11	8	0.197	0.100	97.00
4	AL	13	10970028	60	7	3	9	20	0.165	0.100	65.00
4	FL	1	120330004	60	7	4	12	28	0.001	0.092	-98.91
4	FL	4	121051001	60	7	4	11	11	0.015	0.099	-84.85
9	CA	1	60070002	9	7	2	4	10	0.000	0.090	-100.00
9	CA	1	60070002	9	7	2	4	17	0.000	0.090	-100.00
9	CA	1	60070002	9	7	2	4	24	0.000	0.090	-100.00
9	CA	1	60290232	9	7	2	5	1	0.000	0.094	-100.00
9	CA	1	60290232	9	7	2	5	8	0.000	0.094	-100.00
9	CA	1	60290232	9	7	3	9	4	0.198	0.094	110.64
9	CA	1	60792001	9	7	2	4	26	0.015	0.104	-85.58
9	CA	1	60792001	9	7	2	5	10	0.014	0.104	-86.54
9	CA	1	60792001	9	7	2	5	24	0.016	0.104	-84.62
9	CA	1	60832005	9	7	4	10	25	0.011	0.091	-87.91
9	CA	1	60870003	9	7	2	5	4	0.000	0.088	-100.00
9	CA	1	60870003	9	7	3	8	4	0.000	0.083	-100.00
9	CA	1	60990005	9	7	3	7	17	0.000	0.097	-100.00
9	CA	1	60990005	9	7	3	7	24	0.000	0.097	-100.00
9	CA	1	60990005	9	7	3	7	31	0.000	0.097	-100.00
9	CA	1	60990005	9	7	3	9	18	0.000	0.097	-100.00
9	CA	1	61072002	9	7	2	6	19	0.000	0.098	-100.00
9	CA	1	61072002	9	7	4	11	6	0.000	0.100	-100.00

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	CT	1	90010009	802	1	2	4	9	10000.000	31.000	198.76
1	CT	1	90010009	802	1	2	6	8	10000.000	42.000	198.33
1	CT	1	90010009	802	1	3	7	20	10000.000	33.000	198.68
1	CT	1	90010009	802	1	3	9	30	10000.000	59.000	197.65
1	ME	106	230132001	802	1	4	10	24	9981.000	38.000	198.48
1	RI	1	440071007	802	1	3	7	26	125.000	64.000	64.55
2	NJ	1	340172002	802	1	3	8	25	27.000	95.000	-111.48
3	DE	1	100033001	802	1	2	5	3	57.000	22.000	88.61
3	PA	2	420030064	802	1	2	4	27	23.000	94.000	-121.37
4	AL	11	11090003	802	1	4	11	11	22.000	41.000	-60.32
4	FL	5	120710005	802	1	3	7	26	60.000	25.000	82.35

TABLE A-1. EXTREME PERCENT DIFFERENCES FOR 1988 PARS PRECISION DATA

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
4	FL	11	120310053	802	1	3	9	30	77.000	40.000	63.25
4	FL	14	120810014	802	1	3	8	13	34.000	82.000	-82.76
4	KY	1	210591001	802	1	3	7	20	63.000	32.000	65.26
4	KY	1	210950003	802	1	2	4	3	26.000	65.000	-85.71
4	KY	1	211512001	802	1	4	11	29	22.000	54.000	-84.21
5	IN	1	180970070	802	1	1	1	10	60.000	158.000	-89.91
5	OH	9	390350026	802	1	1	2	21	76.000	191.000	-86.14
5	OH	12	390853003	802	1	1	3	16	43.000	22.000	64.62
6	AR	1	51310008	802	1	1	3	28	33.784	66.717	-65.54
6	AR	1	51310008	802	1	2	4	9	30.907	95.857	-102.47
6	TX	3	481410018	802	1	1	3	22	47.000	108.000	-78.71
8	CO	1	80410009	802	1	4	12	11	152.000	59.000	88.15
8	CO	1	80410009	802	1	4	12	17	248.000	80.000	102.44
8	MT	3	300130017	802	1	3	7	8	101.000	52.000	64.05
8	SD	1	460990004	802	1	2	4	9	34.500	72.700	-71.27
9	CA	4	60011001	802	1	3	9	18	116.000	58.000	66.67
9	CA	61	60590001	802	1	1	2	3	36.000	69.000	-62.86
10	WA	1	530711001	802	1	2	6	26	135.000	272.000	-67.32
10	WA	1	530711001	802	1	3	7	8	201.000	97.000	69.80

TABLE A-2. EXTREME PERCENT DIFFERENCES FOR 1988 PARS ACCURACY DATA

TABLE A-2. EXTREME PERCENT DIFFERENCES FOR 1988 PARS ACCURACY DATA

POLLUTANT = CO

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
3	3	VA	3	510595001	54	7	2	6	16	3.930	40.500	-90.30
3	4	AL	12	10730033	51	7	3	9	2	0.000	38.600	-100.00
1	4	FL	12	120571060	51	7	3	8	19	15.300	6.196	146.93

POLLUTANT = O3

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
2	4	TN	2	471571004	19	7	3	9	28	0.000	0.179	-100.00

POLLUTANT = Pb

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
2	1	RI	1	440010000	45	1	2	6	14	0.390	3.960	-90.23
2	3	PA	3	420030000	43	77	2	5	21	1590.000	866.000	83.60
2	3	VA	3	516000004	803	77	2	6	24	0.000	887.000	-100.00
2	3	VA	3	516000004	803	77	2	6	25	0.000	888.000	-100.00
1	4	FL	12	120120000	803	77	2	7	15	0.250	248.000	-99.90
1	9	CA	61	60610000	803	77	2	6	24	1960.000	197.000	894.92

POLLUTANT = SO2

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	1	NH	1	330111010	39	7	2	5	16	0.003	0.073	-95.89
1	1	NH	1	330150009	39	7	4	12	21	0.005	0.073	-93.15
2	2	NJ	1	340035001	9	7	2	4	14	0.004	0.156	-97.44
1	2	NJ	1	340390003	9	7	1	2	5	0.745	0.057	1207.02
1	2	PR	2	780010011	9	7	1	3	1	0.680	0.067	914.93

TABLE A-3. EXTREME PERCENT DIFFERENCES FOR 1988 NPAP DATA

TABLE A-3. EXTREME PERCENT DIFFERENCES FOR 1988 NPAP DATA

POLLUTANT = CO

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
2	3	VA	3	510591004	54	7	1	3	23	0.00	14.50	-100.00
3	7	IA	1	191530052	8	7	1	3	29	5.70	36.00	-84.17

POLLUTANT = Pb

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
1	3	DC	1	110010000	999	1	1	2	26	1.64	0.58	182.76
1	7	MO	4	290040000	45	1	1	1	22	1.17	0.58	101.72
2	5	IL	1	170010000	803	1	1	3	10	6.50	1.48	339.19

POLLUTANT = PM10

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
2	10	ID	1	160010009	1	83	3	8	5	2.92	1.03	183.50

POLLUTANT = TSP

LEVEL	REGION	STATE	REPORTING ORGANIZATION	SITE	METHOD	UNIT	QTR	MONTH	DAY	INDICATED	DESIGNATED	PERCENT DIFFERENCE
2	2	NY	1	360556001	802	83	3	9	9	32.28	0.89	3526.97
2	4	AL	11	10970016	802	83	2	6	21	0.99	0.45	120.00
2	9	CA	1	60531002	802	83	2	5	25	34.70	0.70	4857.14

APPENDIX B

SUMMARY STATISTICS AND HISTOGRAMS

TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

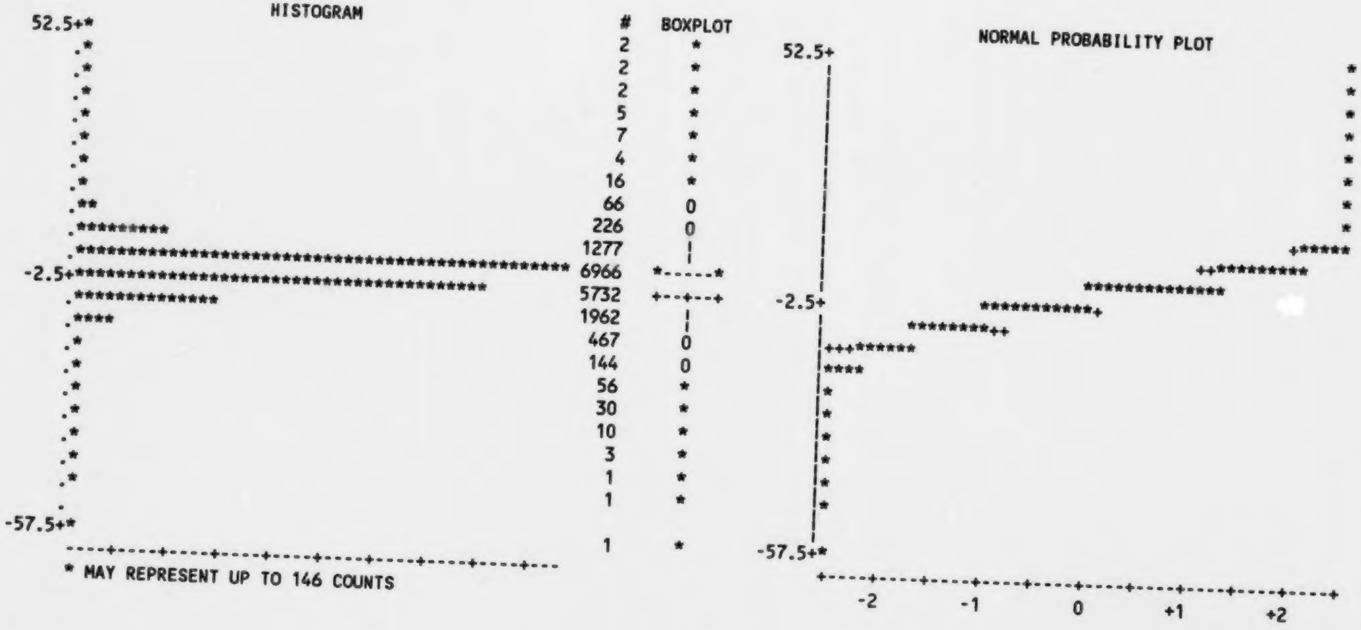
TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

```
                                                             POLLUTANT= CO

                                                              UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                  MOMENTS
                                                         QUANTILES(DEF=4)                                     EXTREMES

N                14143  SUM WGTS        14143  100% MAX    45.3061      99%     13.9675       LOWEST     ID            HIGHEST    ID
MEAN        -0.0295056  SUM          -417.298   75% Q3     2.24719      95%     8.04598          -50 ( CT      )     29.2981 ( NV      )
STD DEV        4.84965  VARIANCE      23.5191   50% MED          0      90%     5.37824     -31.8658 ( KC      )     32.2222 ( AL      )
SKEWNESS      0.412261  KURTOSIS       5.1106   25% Q1    -2.66667      10%    -5.39101          -30 ( OH      )     33.7209 ( CA      )
USS             332619  CSS            332607    0% MIN        -50       5%     -7.2878          -30 ( OH      )     40.0205 ( MO      )
CV            -16436.3  STD MEAN    0.0407793                            1%    -11.8036       -28.75 ( WV      )     45.3061 ( MO      )
T:MEAN=0     -0.723545  PROB>|T|     0.469357   RANGE      95.3061
SGN RANK      -1700075  PROB>|S|       0.0001   Q3-Q1      4.91386
NUM ^= 0         12657                          MODE             0
D:NORMAL     0.0830243  PROB>D           <.01


                       HISTOGRAM                            #  BOXPLOT                        NORMAL PROBABILITY PLOT
 47.5+*                                                     1     *        47.5+                                                 *
     .*                                                     1     *            |                                                 *
     .                                                                         |
     .*                                                     2     *            |                                                 *
     .*                                                     8     *            |                                                 *
     .*                                                    30     *            |                                                 *
     .*                                                    75     0            |                                                **
     .***                                                 297     0            |                                           ******+
     .**********                                         1154     0            |                                   +*********+
     .************************************************ 5970  *-----*         |                       ***************
     .****************************************         4966  +--+--+         |            *************+
     .***********                                      1372     |            |   ***********+
     .**                                                  218     0            |*****
     .*                                                    30     0            |*
     .*                                                    12     *            |*
     .*                                                     5     *            |*
     .*                                                     1     *            |*
     .                                                                         |
     .                                                                         |
-47.5+*                                                     1     *       -47.5+*
      ----+----+----+----+----+----+----+----+----+---                      +----+----+----+----+----+----+----+----+----+----+
      * MAY REPRESENT UP TO 125 COUNTS                                          -2        -1         0        +1        +2
```

```
                                         TABLE B-1.  SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

                                                                POLLUTANT= NO2

                                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE


                 MOMENTS                               QUANTILES(DEF=4)                              EXTREMES

N                6294 SUM WGTS         6294 100% MAX    42.8571  99%         17.5856     LOWEST     ID        HIGHEST     ID
MEAN         -0.66824 SUM           -4205.9  75% Q3     3.22581  95%         10.4651    -51.0204 ( CA    )     36.8421 ( CA    )
STD DEV       7.13705 VARIANCE      50.9375  50% MED          0  90%         7.26029    -37.1134 ( CA    )       41.25 ( KY    )
SKEWNESS   -0.0748668 KURTOSIS      3.53314  25% Q1    -4.16667  10%        -8.94983    -34.4444 ( CA    )       41.25 ( MI    )
USS            323360 CSS            320550   0% MIN   -51.0204   5%        -12.6316         -32 ( CA    )     42.1053 ( CA    )
CV           -1068.04 STD MEAN    0.0899612                       1%        -21.3706    -31.8182 ( CA    )     42.8571 ( CA    )
T:MEAN=0     -7.42809 PROB>|T|       0.0001 RANGE       93.8776
SGN RANK      -856845 PROB>|S|       0.0001 Q3-Q1       7.39247
NUM ^= 0         5579                       MODE              0
D:NORMAL    0.0720072 PROB>D           <.01


                          HISTOGRAM                         #   BOXPLOT                        NORMAL PROBABILITY PLOT
   42.5+*                                                   4      *        42.5+                                                  *
       .*                                                   3      *            |                                                  *
       .*                                                   5      *            |                                                  *
       .*                                                  12      *            |                                                  *
       .*                                                  20      0            |                                                  *
       .**                                                 51      0            |                                               ***+
       .******                                            248      0            |                                        +********
       .***************                                   663      |            |                                 ++********
       .************************************************ 2219   *-----*         |                         ***********
       .**************************************           1741   +--+--+         |                 *********
       .******************                                817      |            |           *******+
       .*******                                           322      |            |    +******
       .***                                               116      0            |++******
       .*                                                  46      0            |***
       .*                                                  19      0            |*
       .*                                                   6      *            |*
       .*                                                   1      *            |*
       .                                                                        |
       .                                                                        |
  -52.5+*                                                   1      *       -52.5+*
       ----+----+----+----+----+----+----+----+----+---                         +----+----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 47 COUNTS                                              -2        -1         0        +1        +2
```

TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

```
                                         POLLUTANT= O3

                                          UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS
                                                      QUANTILES(DEF=4)
                                                                                                  EXTREMES
N               16980  SUM WGTS        16980  100% MAX   52.6316        99%    12.8302
MEAN        -0.837934  SUM          -14228.1   75% Q3    2.06186        95%          7      LOWEST    ID           HIGHEST    ID
STD DEV       5.46242  VARIANCE      29.8381   50% MED         0        90%    4.93827   -57.4713 ( CA      )    42.1053 ( CA      )
SKEWNESS    -0.249748  KURTOSIS      7.92921   25% Q1   -3.33333        10%   -6.66667    -45.977 ( CA      )    47.3684 ( CA      )
USS            518543  CSS            506621    0% MIN  -57.4713         5%   -9.47368   -44.3299 ( CA      )    47.3684 ( CA      )
CV           -651.892  STD MEAN    0.0419195                             1%   -17.3469   -38.5417 ( CA      )         52 ( AL      )
T:MEAN=0     -19.9891  PROB>|T|       0.0001  RANGE      110.103                         -35.5556 ( CA      )    52.6316 ( CA      )
SGN RANK    -10561455  PROB>|S|       0.0001  Q3-Q1      5.39519
NUM ^= 0        14609                         MODE             0
D:NORMAL    0.0835273  PROB>D            <.01
```



* MAY REPRESENT UP TO 146 COUNTS

TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

```
                                                     POLLUTANT= PB

                                                      UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                                    QUANTILES(DEF=4)                               EXTREMES

N                 1108  SUM WGTS        1108  100% MAX   54.5455    99%    44.4185      LOWEST    ID       HIGHEST    ID
MEAN         -0.153284  SUM         -169.838   75% Q3    5.40541    95%    23.0113    -59.3407 ( AR   )         50 ( MO   )
STD DEV        13.9795  VARIANCE     195.428   50% MED         0    90%    14.8449    -58.1513 ( MO   )    50.9804 ( MO   )
SKEWNESS     -0.145356  KURTOSIS     3.58262   25% Q1   -5.63649    10%   -14.2857    -55.6098 ( AR   )    53.6585 ( MO   )
USS             216365  CSS           216338    0% MIN  -59.3407     5%   -21.6003    -54.8303 ( MT   )    54.5455 ( MO   )
CV            -9120.06  STD MEAN    0.419975                         1%   -47.9334    -54.0606 ( MT   )    54.5455 ( MO   )
T:MEAN=0     -0.364983  PROB>|T|    0.715194  RANGE      113.886
SGN RANK         -3725  PROB>|S|    0.616029  Q3-Q1      11.0419
NUM ^= 0           871                        MODE             0
D:NORMAL      0.119258  PROB>D          <.01
```

```
                    HISTOGRAM                           #  BOXPLOT
  52.5+*                                                4      *
      .*                                                5      *
      .*                                                5      *
      .*                                                8      0
      .*                                                6      0
      .**                                              16      0
      .****                                            29      0
      .*****                                           36      |
      .**********                                      75      |
      .**************                                 110   +-----+
      .*********************************************  360   *-----*
  -2.5+*******************                            149   |  +  |
      .*****************                              135   +-----+
      .*********                                       68      |
      .*****                                           35      |
      .****                                            27      0
      .**                                              10      0
      .*                                                6      0
      .*                                                4      0
      .*                                                4      *
      .*                                                7      *
      .*                                                6      *
 -57.5+*                                                3      *
       ----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 8 COUNTS
```

```
                    NORMAL PROBABILITY PLOT
  52.5+                                                    *
      |                                                   **
      |                                                 ***
      |                                               ***
      |                                               * ++++
      |                                           ***++
      |                                         ***
      |                                     ++***
      |                                  ++****
      |                              ++*****
      |                        **********
  -2.5+                    *****++
      |                *****++
      |             ****++
      |           ***++
      |       ***+
      |    ++**
      | +++ **
      |+   **
      |   **
      | ***
      |**
 -57.5+*
       +----+----+----+----+----+----+----+----+----+----+
           -2        -1         0        +1        +2
```

TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

```
                                         POLLUTANT= PM10
VARIABLE= PERCENT DIFFERENCE
                                            UNIVARIATE
                MOMENTS
                                              QUANTILES(DEF=4)                              EXTREMES
N                 4634  SUM WGTS        4634  100% MAX    58.8235    99%     32.6312
MEAN          0.839793  SUM           3891.6   75% Q3     4.87805    95%     17.5439     LOWEST    ID      HIGHEST   ID
STD DEV         10.077  VARIANCE     101.546   50% MED          0    90%     11.3729   -58.8235 ( MI  )   54.2729 ( IA  )
SKEWNESS      0.303079  KURTOSIS     5.09355   25% Q1    -3.92157    10%    -8.92206   -56.8421 ( MT  )   56.1404 ( TN  )
USS             473733  CSS           470465    0% MIN   -58.8235     5%    -13.3393   -52.1739 ( OH  )   56.1576 ( NB  )
CV             1199.94  STD MEAN    0.148032                          1%    -27.7303   -49.1803 ( IL  )   58.8235 ( AL  )
T:MEAN=0       5.67307  PROB>|T|      0.0001  RANGE       117.647                      -47.3282 ( MN  )   58.8235 ( MT  )
SGN RANK        382247  PROB>|S|      0.0001  Q3-Q1       8.79962
NUM ^= 0          3963                        MODE              0
D:NORMAL     0.0984873  PROB>D          <.01

               HISTOGRAM                          #   BOXPLOT
  55+*                                            8      *
    .*                                           17      *
    .*                                           34      0
    .***                                        109      0
    .*********                                  392      0
    .************************************************ 2201   *--+--*
    .*********************************         1500   +-----+
    .******                                     263      0
    .**                                          77      0
    .*                                           18      *
    .*                                           12      *
 -55+*                                            3      *
     ----+----+----+----+----+----+----+----+---
 * MAY REPRESENT UP TO 46 COUNTS

                            NORMAL PROBABILITY PLOT
  55+
     |                                                      *
     |                                                     *
     |                                                 ****
     |                                             *****+++
     |                                  ++********+
     |                       **************
     |            **************+
     |     *******+++
     |+*****
     |*
     |*
 -55+*
     +----+----+----+----+----+----+----+----+----+----+
         -2        -1         0        +1        +2
```

```
                                          TABLE B-1.  SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

                                                                 POLLUTANT= SO2

                                                                  UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                  MOMENTS                               QUANTILES(DEF=4)                              EXTREMES

N               18087 SUM WGTS        18087 100% MAX     50.6329    99%       13.4712     LOWEST     ID        HIGHEST     ID
MEAN         -1.08636 SUM            -19649  75% Q3      2.12766    95%       7.77778    -52.6882 ( VA    )    27.7778 ( NH    )
STD DEV       5.63074 VARIANCE      31.7053  50% MED    -1.05263    90%       5.44673    -39.3939 ( CA    )     27.957 ( NH    )
SKEWNESS   -0.0888557 KURTOSIS      2.90481  25% Q1     -4.21053    10%      -7.77778    -34.7368 ( CA    )      28.75 ( PA    )
USS            594767 CSS            573421   0% MIN    -52.6882     5%      -10.5263       -32.5 ( CA    )    33.3333 ( NH    )
CV           -518.313 STD MEAN     0.041868                          1%           -16       -32.5 ( CA    )    50.6329 ( CA    )
T:MEAN=0     -25.9473 PROB>|T|       0.0001 RANGE        103.321
SGN RANK    -15412834 PROB>|S|       0.0001 Q3-Q1        6.33818
NUM ^= 0        15845                       MODE               0
D:NORMAL    0.0760635 PROB>D           <.01

                        HISTOGRAM                         #   BOXPLOT
 52.5+*                                                   1      *
     .
     .
     .
     .*                                                   1      *
     .*                                                   8      *
     .*                                                  25      0
 17.5+*                                                  89      0
     .***                                               332      0
     .************                                     1573      |
     .************************************************ 6497   +-----+
     .********************************************     5925   *--+--*
     .********************                             2630      |
     .******                                            784      0
-17.5+**                                                168      0
     .*                                                  32      0
     .*                                                  15      *
     .*                                                   5      *
     .*                                                   1      *
     .
     .
-52.5+*                                                   1      *
     ----+----+----+----+----+----+----+----+----+---
      * MAY REPRESENT UP TO 136 COUNTS

                     NORMAL PROBABILITY PLOT
 52.5+                                                   *
     |
     |
     |
     |                                                  *
     |                                                  *
     |                                                  *
 17.5+                                                  *
     |                                            *******
     |                                    +*********
     |                          *************
     |                 ***********
     |         **********+
     | ++********
-17.5+****
     |*
     |*
     |*
     |*
     |
     |
-52.5+*
     +----+----+----+----+----+----+----+----+----+----+
         -2        -1         0        +1        +2
```

TABLE B-1. SUMMARY STATISTICS FOR 1988 PARS PRECISION DATA

```
                                        POLLUTANT= TSP

                                          UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                 MOMENTS                                QUANTILES(DEF=4)                              EXTREMES

N                11839  SUM WGTS        11839  100% MAX   59.3258      99%    24.0094       LOWEST     ID           HIGHEST     ID
MEAN         0.0901301  SUM           1067.05   75% Q3    4.34993      95%    13.3333     -59.1549 ( NY      )     56.1404 ( KY     )
STD DEV         8.7657  VARIANCE      76.8376   50% MED         0      90%     9.1954     -57.1429 ( KY      )     56.7164 ( NM     )
SKEWNESS     0.0204675  KURTOSIS      5.97105   25% Q1   -4.09357      10%   -9.15033     -56.4103 ( CO      )     57.1429 ( CO     )
USS             909699  CSS            909603    0% MIN  -59.1549       5%   -13.3333     -55.2965 ( NM      )     58.5859 ( TX     )
CV             9725.61  STD MEAN    0.0805618                           1%   -24.6379     -55.0725 ( DE      )     59.3258 ( NB     )
T:MEAN=0       1.11877  PROB>|T|     0.263261  RANGE      118.481
SGN RANK        461471  PROB>|S|     0.138886  Q3-Q1      8.44349
NUM ^= 0         10527                         MODE             0
D:NORMAL      0.071151  PROB>D           <.01

                  HISTOGRAM                                #  BOXPLOT
  55+*                                                                          NORMAL PROBABILITY PLOT
    .*                                                    12     *         55+
    .*                                                    18     *            |                                                    *
    .**                                                   35     *            |                                                    *
    .*******                                             147     0            |                                                    *
    .************************************************    803     0            |                                                *****
    .************************************              5641  *--+--*          |                                      ++*********+
    .*******                                            4191  +-----+          |                        ******************
    .**                                                  784     0            |            **************+
    .*                                                   147     0            |    +*********++
    .*                                                    37     *            |*****
 -55+*                                                    13     *            |*
     ----+----+----+----+----+----+----+----+----+---     11     *            |*
     * MAY REPRESENT UP TO 118 COUNTS                                     -55+*
                                                                              +----+----+----+----+----+----+----+----+----+----+
                                                                                  -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                              TABLE B-2.  SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

                                        POLLUTANT= CO   LEVEL= 1

                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                 QUANTILES(DEF=4)                              EXTREMES

N               1066  SUM WGTS         1066  100% MAX   69.3333     99%    22.9585      LOWEST   ID        HIGHEST   ID
MEAN      -0.0253074  SUM          -26.9777   75% Q3    3.44828     95%    11.6531   -33.6606( SC     )  27.4131( AL     )
STD DEV      7.50891  VARIANCE      56.3837   50% MED         0     90%    8.16327   -32.2034( KY     )  30.7692( OR     )
SKEWNESS     1.01002  KURTOSIS      9.03921   25% Q1    -3.9661     10%   -7.77456   -26.8058( SC     )       32( CO     )
USS          60049.3  CSS           60048.7    0% MIN  -33.6606      5%   -10.2549   -26.3158( OH     )  32.0513( OR     )
CV          -29670.8  STD MEAN     0.229984                          1%   -18.8123   -25.4237( KY     )  69.3333( CA     )
T:MEAN=0    -0.11004  PROB>|T|     0.912399  RANGE      102.994
SGN RANK      -12282  PROB>|S|     0.174273  Q3-Q1      7.41438
NUM ^= 0         993                         MODE             0
D:NORMAL   0.0829244  PROB>D           <.01

                        HISTOGRAM                              #   BOXPLOT
 67.5+*                                                 1      *
     .
 57.5+
     .
 47.5+
     .
 37.5+
     .*                                                 3      *
 27.5+*                                                 4      *
     .**                                               11      0
 17.5+**                                               15      0
     .*****                                            37      0
  7.5+***************                                 114      |
     .**********************************************  363   *-----*
 -2.5+**************************************          302   +--+--+
     .********************                            159      |
-12.5+*****                                            36      |
     .**                                               12      0
-22.5+*                                                 4      0
     .*                                                 3      0
-32.5+*                                                 2      *
      ----+----+----+----+----+----+----+----+----+-
      * MAY REPRESENT UP TO 8 COUNTS

                         NORMAL PROBABILITY PLOT
 67.5+                                                  *
     |
 57.5+
     |
 47.5+
     |
 37.5+
     |                                                  *
 27.5+                                                 **
     |                                              ****
 17.5+                                            ***++++
     |                                       +*****++
  7.5+                                ++********
     |                         **********
 -2.5+                 **********
     |         **********+
-12.5+     *****++
     |+****+
-22.5+**
     |*
-32.5+*
     +----+----+----+----+----+----+----+----+----+----+
         -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                        POLLUTANT= CO   LEVEL= 2

                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE


              MOMENTS
                                                   QUANTILES(DEF=4)
                                                                                              EXTREMES
N              1050  SUM WGTS       1050  100% MAX   28.4091    99%    13.1545
MEAN       0.377411  SUM         396.282   75% Q3    2.28571    95%    7.35932      LOWEST    ID            HIGHEST    ID
STD DEV     4.29726  VARIANCE    18.4664   50% MED         0    90%    4.99834   -25.4177( WV     )    18.9024( AL     )
SKEWNESS   0.625044  KURTOSIS    6.69923   25% Q1   -1.92308    10%   -4.04246   -19.1489( MT     )    18.9024( AL     )
USS         19520.8  CSS         19371.3    0% MIN  -25.4177     5%   -5.31344    -17.757( TX     )    23.8636( OR     )
CV          1138.61  STD MEAN   0.132616                         1%   -10.5147   -17.1241( WV     )    26.3736( CA     )
T:MEAN=0    2.84589  PROB>|T|   0.004515  RANGE      53.8268                      -13.1265( WV     )    28.4091( OR     )
SGN RANK    18186.5  PROB>|S|  0.0404845  Q3-Q1      4.20879
NUM ^= 0        981                       MODE             0
D:NORMAL  0.0859842  PROB>D         <.01


                  HISTOGRAM                              #   BOXPLOT
  27.5+*                                                                                NORMAL PROBABILITY PLOT
      .*                                                 2      *           27.5+
      .*                                                 1      *               |                                                       *
      .**                                                4      *               |                                                       *
      .********                                         20      0               |                                                       *
      .************************************************ 76      0               |                                                  *****+
      .*****************************************       480   *--+--*            |                                          ++*******+++
      .*****                                           409   +-----+            |                              ****************
      .*                                                47      0               |              *****************
      .*                                                 7      0               | +********+++
      .                                                  3      *               |***
 -27.5+*                                                                        |*
       ----+----+----+----+----+----+----+----+----+---  1      *          -27.5+*
       * MAY REPRESENT UP TO 10 COUNTS                                           +----+----+----+----+----+----+----+----+----+----+
                                                                                     -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                        POLLUTANT= CO   LEVEL= 3

                                              UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                              QUANTILES(DEF=4)                            EXTREMES

N                 895  SUM WGTS          895  100% MAX    17.3913    99%     9.30101
MEAN         0.240427  SUM           215.182   75% Q3     1.83486    95%     5.91133     LOWEST    ID          HIGHEST    ID
STD DEV        3.5013  VARIANCE      12.2591   50% MED     0.2331    90%     4.04882        -18( MT     )      13.9354( FL     )
SKEWNESS     -0.15149  KURTOSIS      4.36611   25% Q1    -1.33333    10%    -3.52927   -15.9624( MT     )      14.5078( AL     )
USS           11011.4  CSS           10959.7    0% MIN        -18     5%    -4.94812   -14.9637( WV     )      14.6341( KC     )
CV            1456.28  STD MEAN     0.117036                          1%    -10.9357   -14.1791( AK     )      17.1498( OR     )
T:MEAN=0      2.05431  PROB>|T|    0.0402361  RANGE       35.3913                       -13.5835( WV     )      17.3913( OR     )
SGN RANK        19977  PROB>|S|   0.00568282  Q3-Q1       3.16819
NUM ^= 0          855                         MODE              0
D:NORMAL    0.0785573  PROB>D           <.01


                   HISTOGRAM                                 #  BOXPLOT
 17+*                                                        2     *            NORMAL PROBABILITY PLOT
   .*                                                        2     *        17+                                                 *
   .*                                                        1     *          |                                                 *
   .*                                                        3     0          |                                                 *
   .*                                                        6     0          |                                                **
   .*****                                                   29     0          |                                              **++
   .*******                                                 49     |          |                                         *****+
   .*****************                                      118     |          |                                     ++*****
   .******************************************             294  *--+--*       |                                 +*******
 -1+********************************                       222  +-----+    -1+                          **********
   .**************                                          96     |          |                    ********+
   .*******                                                 43     |          |                ******++
   .**                                                      12     0          |            *****+
   .*                                                        7     0          |        +++***
   .*                                                        4     0          |++ **
   .*                                                        3     *          | **
   .*                                                        3     *          |**
   .*                                                        1     *          |*
-19+                                                                          |*
    ----+----+----+----+----+----+----+----+--                            -19+
    * MAY REPRESENT UP TO 7 COUNTS                                             +----+----+----+----+----+----+----+----+----+----+
                                                                                   -2        -1         0        +1        +2
```

```
                                 TABLE B-2.  SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

                                                POLLUTANT= CO   LEVEL= 4

                                                       UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

               MOMENTS                                    QUANTILES(DEF=4)                          EXTREMES

N                  7  SUM WGTS           7 100% MAX    3.2634      99%      3.2634       LOWEST    ID         HIGHEST    ID
MEAN         1.96551  SUM          13.7585  75% Q3    2.98851      95%      3.2634       0.4662( CO      )   2.06897( CO      )
STD DEV      1.08418  VARIANCE     1.17544  50% MED    2.0979      90%      3.2634     0.574713( CO      )    2.0979( CO      )
SKEWNESS   -0.505911  KURTOSIS    -1.09685  25% Q1   0.574713      10%      0.4662      2.06897( CO      )   2.29885( CO      )
USS          34.0951  CSS          7.05264   0% MIN    0.4662       5%      0.4662       2.0979( CO      )   2.98851( CO      )
CV           55.1602  STD MEAN     0.40978                          1%      0.4662      2.29885( CO      )    3.2634( CO      )
T:MEAN=0     4.79649  PROB>|T|  0.00301155  RANGE      2.7972
SGN RANK          14  PROB>|S|   0.0224943  Q3-Q1     2.41379
NUM ^= 0           7                        MODE       0.4662
W:NORMAL    0.891393  PROB<W         0.337

STEM LEAF                    #  BOXPLOT                        NORMAL PROBABILITY PLOT
   3 03                      2     |            3.5+                                          ++++*++++
   2 113                     3  *-----*             |                      *    *+++*+++*+
   1                            |  +  |             |                 +++++++++
   0 56                      2  +-----+         0.5+       ++++*+++++*
     ----+----+----+----+                           +----+----+----+----+----+----+----+----+----+----+
                                                         -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                        POLLUTANT= NO2   LEVEL= 1

                                               UNIVARIATE

VARIABLE= PERCENT DIFFERENCE

            MOMENTS                                   QUANTILES(DEF=4)                      EXTREMES

N                473  SUM WGTS         473  100% MAX    35.7143   99%    26.6562     LOWEST   ID          HIGHEST   ID
MEAN        0.399934  SUM          189.169   75% Q3      5.5175   95%    15.3846   -38.2716( FL    )    26.5625( WV    )
STD DEV      9.04027  VARIANCE     81.7264   50% MED          0   90%    10.2917   -36.3636( KY    )    26.9231( NY    )
SKEWNESS  0.00942742  KURTOSIS     2.16541   25% Q1    -4.06784   10%   -10.2216   -28.8136( MO    )    27.5362( CA    )
USS          38650.5  CSS          38574.9    0% MIN   -38.2716    5%   -14.4928   -26.9231( WI    )      31.25( KY    )
CV           2260.44  STD MEAN    0.415672                         1%   -24.1594   -23.1884( IL    )    35.7143( KY    )
T:MEAN=0    0.962138  PROB>|T|    0.336473  RANGE       73.9859
SGN RANK        2735  PROB>|S|    0.283862  Q3-Q1       9.58535
NUM ^= 0         427                        MODE              0
D:NORMAL   0.0626866  PROB>D           <.01

                    HISTOGRAM                              #   BOXPLOT
   37.5+*                                                  1      *
       .*                                                  1      0
       .**                                                 4      0
   22.5+***                                                8      0
       .****                                              10      |
       .*********                                         25      |
    7.5+***************************                       79   +-----+
       .***********************************************  139   *--+--*
       .*********************************                 98   +-----+
   -7.5+********************                              59      |
       .**********                                        30      |
       .*****                                             13      0
  -22.5+*                                                  2      0
       .*                                                  2      0
       .
  -37.5+*                                                  2      *
        ----+----+----+----+----+----+----+----+----+--
        * MAY REPRESENT UP TO 3 COUNTS

                            NORMAL PROBABILITY PLOT
    37.5+                                                  *
        |                                                  *
        |                                                ***
    22.5+                                            ****+++
        |                                         ***+++
        |                                    +*****
     7.5+                              *******
        |                       **********
        |                  ******+
    -7.5+           ********+
        |       *****+
        |  *****
   -22.5+++*
        |**
        |
   -37.5+*
        +----+----+----+----+----+----+----+----+----+----+
            -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                          POLLUTANT= NO2   LEVEL= 2

                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                                   QUANTILES(DEF=4)                                       EXTREMES

N                 458  SUM WGTS          458   100% MAX    24.0223     99%    15.8715     LOWEST    ID           HIGHEST    ID
MEAN        0.0105674  SUM           4.83985    75% Q3     3.28142     95%    10.0819   -25.2747( FL       )   15.6425( KY       )
STD DEV       6.05987  VARIANCE       36.722    50% MED          0     90%    7.50377   -17.3684( KY       )   16.2011( KY       )
SKEWNESS   -0.0332938  KURTOSIS      1.34939    25% Q1    -3.40329     10%   -7.38795   -17.3184( CA       )   16.4835( KY       )
USS             16782  CSS             16782     0% MIN   -25.2747      5%   -10.2923   -16.9492( CA       )      20.5( MA       )
CV            57345.2  STD MEAN     0.283159                            1%    -16.364   -15.9574( CA       )   24.0223( KY       )
T:MEAN=0    0.0373195  PROB>|T|     0.970247   RANGE       49.2971
SGN RANK          204  PROB>|S|     0.937095   Q3-Q1       6.68472
NUM ^= 0          430                          MODE              0
D:NORMAL    0.0564761  PROB>D           <.01

                  HISTOGRAM                          #   BOXPLOT
 22.5+*                                              2      0
     .*                                              3      0
     .*****                                         18      0
     .****************                              63      |
     .*************************************** 156   *--+--*
 -2.5+*************************************         145   +-----+
     .***********                                   44      |
     .******                                        22      0
     .*                                              4      0
     .
-27.5+*                                              1      *
      ----+----+----+----+----+----+----+----
     * MAY REPRESENT UP TO 4 COUNTS

                        NORMAL PROBABILITY PLOT
 22.5+                                                  *
     |                                                ***
     |                                         ******++
     |                                 ********
     |                       ************
 -2.5+              ***********
     |        ********+
     |++********
     |***
     |
-27.5+*
     +----+----+----+----+----+----+----+----+----+----+
         -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                   POLLUTANT= NO2   LEVEL= 3

                                          UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                 MOMENTS
                                                QUANTILES(DEF=4)
                                                                                             EXTREMES
N                  420  SUM WGTS          420  100% MAX    41.2429     99%     13.8771
MEAN         -0.473455  SUM          -198.851   75% Q3     2.26682     95%     8.10013      LOWEST    ID       HIGHEST    ID
STD DEV        5.59726  VARIANCE      31.3293   50% MED  -0.498865     90%     5.82523   -19.4805( CA    )   13.8329( NY    )
SKEWNESS      0.804054  KURTOSIS      7.53541   25% Q1    -3.46541     10%     -6.9706   -18.5464( CA    )   13.8889( FL    )
USS            13221.1  CSS             13127    0% MIN   -19.4805      5%    -10.4218        -18( FL    )   13.9601( MA    )
CV            -1182.22  STD MEAN     0.273118                           1%    -14.1389   -14.5038( LA    )   16.6205( KY    )
T:MEAN=0      -1.73352  PROB>|T|    0.0837397  RANGE       60.7235                        -12.766( MD    )   41.2429( OR    )
SGN RANK         -4950  PROB>|S|    0.0350712  Q3-Q1       5.73223
NUM ^= 0           404                         MODE              0
D:NORMAL     0.0675713  PROB>D           <.01


                     HISTOGRAM                     #  BOXPLOT                     NORMAL PROBABILITY PLOT
  42.5+*                                           1     *          42.5+                                                  *
      .                                                                 |
      .                                                                 |
      .                                                                 |
      .                                                                 |
      .*                                           1     0              |
  12.5+**                                          7     0          12.5+                                                  *
      .*************                              49     |              |                                          +*******
      .***********************************       138  +-----+           |                               +***********
      .***************************************   156  *--+--*           |                    ************
      .************                               46     |              |         *************
      .*****                                      19     0              |  +********+
 -17.5+*                                           3     0              |+*********
       ----+----+----+----+----+----+----+----                    -17.5+*
       * MAY REPRESENT UP TO 4 COUNTS                                    +----+----+----+----+----+----+----+----+----+----+
                                                                             -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                    POLLUTANT= NO2   LEVEL= 4

                                           UNIVARIATE

VARIABLE= PERCENT DIFFERENCE

            MOMENTS                                   QUANTILES(DEF=4)                              EXTREMES

N                15  SUM WGTS          15 100% MAX   7.12617     99%    7.12617     LOWEST    ID          HIGHEST    ID
MEAN       0.576158  SUM          8.64237  75% Q3    4.98783     95%    7.12617   -4.14634( CT      )   4.06032( IL      )
STD DEV     3.62634  VARIANCE     13.1503  50% MED  -1.11111     90%    5.95391   -2.94464( IL      )   4.98783( IL      )
SKEWNESS     0.6219  KURTOSIS    -1.17497  25% Q1   -2.01117     10%   -3.42532   -2.76442( CT      )   5.01672( IL      )
USS         189.084  CSS          184.105   0% MIN  -4.14634      5%   -4.14634   -2.01117( IL      )   5.17241( IL      )
CV          629.401  STD MEAN    0.936317                         1%   -4.14634   -1.80288( CT      )   7.12617( IL      )
T:MEAN=0   0.615345  PROB>|T|      0.5482  RANGE     11.2725
SGN RANK          4  PROB>|S|     0.84243  Q3-Q1     6.99901
NUM ^= 0         15                        MODE     -4.14634
W:NORMAL   0.870807  PROB<W         0.038


STEM LEAF                     #  BOXPLOT                      NORMAL PROBABILITY PLOT
   0 5557                     4     |         7.5+                                   *  *++++*++++++++
   0 4                        1  +--+--+         |                           ++++++*+*+++++
  -0 4332211100              10  *-----*     -2.5+      * +++*++*+*+*+** * **
     ----+----+----+----+                        +----+----+----+----+----+----+----+----+----+----+
  MULTIPLY STEM.LEAF BY 10**+01                      -2        -1         0        +1        +2
```

```
                          TABLE B-2.  SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

                                          POLLUTANT= O3   LEVEL= 1

                                                  UNIVARIATE

VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                   QUANTILES(DEF=4)                               EXTREMES

N                 1364  SUM WGTS        1364  100% MAX   38.8889       99%    15.7463       LOWEST    ID          HIGHEST    ID
MEAN         -0.819816  SUM         -1118.23   75% Q3    2.66667       95%     9.3781    -30.7692( MN      )    21.6667( AL      )
STD DEV        6.39015  VARIANCE      40.834   50% MED         0       90%    6.10723    -30.3511( SC      )     21.875( AL      )
SKEWNESS     0.0565518  KURTOSIS     3.38094   25% Q1   -4.16667       10%   -8.17999    -28.0702( TX      )    22.8571( HI      )
USS            56573.5  CSS          55656.7    0% MIN  -30.7692        5%   -10.9689    -26.5625( KY      )    32.8358( CA      )
CV            -779.462  STD MEAN    0.173023                            1%   -18.1192    -26.1905( KY      )    38.8889( MN      )
T:MEAN=0      -4.73819  PROB>|T|      0.0001  RANGE      69.6581
SGN RANK      -61773.5  PROB>|S|      0.0001  Q3-Q1      6.83333
NUM ^= 0          1192                        MODE             0
D:NORMAL     0.0677262  PROB>D          <.01

                           HISTOGRAM                                  #   BOXPLOT                    NORMAL PROBABILITY PLOT
  37.5+*                                                              1      *         37.5+                                                  *
      .*                                                              1      *             |                                                  *
      .                                                                                    |
      .*                                                              6      0             |                                                  *
      .*                                                              8      0             |                                                ***
      .****                                                          43      0             |                                          ******++
      .************                                                 122      |             |                                   +********
   2.5+***********************************************              511   *-----*       2.5+                         ************
      .***********************************                          380   +--+--+          |                 **********+
      .*******************                                          205      |             |          ********+
      .******                                                        62      0             |   +********
      .**                                                            17      0             |*****
      .*                                                              3      0             |*
      .*                                                              3      *             |*
 -32.5+*                                                              2      *        -32.5+*
       ----+----+----+----+----+----+----+----+----+--                                     +----+----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 11 COUNTS                                                          -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

POLLUTANT= O3   LEVEL= 2

```
                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

             MOMENTS                                QUANTILES(DEF=4)                              EXTREMES

N              1349  SUM WGTS        1349 100% MAX   28.7293     99%    10.3403      LOWEST    ID        HIGHEST    ID
MEAN      -0.577955  SUM         -779.662  75% Q3    2.09702     95%    6.03867   -22.1053( KY     )   14.6465( NJ     )
STD DEV     4.38845  VARIANCE     19.2585  50% MED -0.520833     90%    4.45545   -17.5532( KY     )   15.7576( KY     )
SKEWNESS -0.0438253  KURTOSIS     2.77193  25% Q1   -3.10881     10%   -5.74412    -16.442( SC     )    16.185( NJ     )
USS         26411.1  CSS          25960.5   0% MIN  -22.1053      5%   -8.00026   -15.9763( TX     )    16.763( MN     )
CV         -759.306  STD MEAN    0.119483                         1%   -12.6044   -15.3846( NJ     )   28.7293( KY     )
T:MEAN=0   -4.83714  PROB>|T|      0.0001  RANGE     50.8345
SGN RANK     -59202  PROB>|S|      0.0001  Q3-Q1     5.20583
NUM ^= 0       1268                        MODE            0
D:NORMAL  0.0452299  PROB>D           <.01

                      HISTOGRAM                           #  BOXPLOT                  NORMAL PROBABILITY PLOT
   27.5+*                                                 1     *        27.5+
       .                                                                     |                                                  *
       .*                                                                    |
       .*                                                 3     0            |                                                  *
       .********                                         10     0            |                                                ***
    2.5+***********************************************  90     |            |                                   +***********+
       .*******************************************      557 +-----+      2.5+                     ****************
       .*************                                    508 *--+--*         |          *************+
       .**                                              151     |            |   +***********
       .*                                                24     0            |******
  -22.5+*                                                 4     0            |*
        ----+----+----+----+----+----+----+----+----+--   1     *       -22.5+*
        * MAY REPRESENT UP TO 12 COUNTS                                       +----+----+----+----+----+----+----+----+----+----+
                                                                                  -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

POLLUTANT= 03   LEVEL= 3

UNIVARIATE

```
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                            QUANTILES(DEF=4)                          EXTREMES

N               1161  SUM WGTS       1161  100% MAX    24.163    99%     8.7972     LOWEST    ID          HIGHEST    ID
MEAN       -0.746578  SUM        -866.778   75% Q3    1.66272    95%    5.92447   -22.9095( SC     )    11.0837( NJ     )
STD DEV       4.3414  VARIANCE    18.8477   50% MED -0.457666    90%    4.11147   -19.9513( TX     )    13.0751( TX     )
SKEWNESS   -0.156919  KURTOSIS    3.11482   25% Q1   -3.11746    10%   -6.04466      -17.5( DE     )    19.3789( SC     )
USS          22510.5  CSS         21863.4    0% MIN  -22.9095     5%   -8.16211   -15.3425( OH     )    23.0216( SC     )
CV          -581.506  STD MEAN   0.127413                         1%   -12.9908   -15.2632( NJ     )     24.163( SC     )
T:MEAN=0    -5.85952  PROB>|T|     0.0001  RANGE      47.0725
SGN RANK    -57546.5  PROB>|S|     0.0001  Q3-Q1      4.78018
NUM ^= 0        1124                       MODE             0
D:NORMAL   0.0645357  PROB>D         <.01


                    HISTOGRAM                           #   BOXPLOT                NORMAL PROBABILITY PLOT
 22.5+*                                                 2      *          22.5+                                                 *
     .*                                                 1      *              |                                                 *
     .*                                                 4      0              |                                                 *
  7.5+********                                         79      0           7.5+                                     *************
     .**********************************************  458   +-----+           |                         ***************
     .*********************************************   442   *--+--*           |              *************
 -7.5+***************                                 145      |          -7.5+   ++***********
     .***                                              25      0              |******
     .*                                                 4      0              |*
-22.5+*                                                 1      *         -22.5+*
      ----+----+----+----+----+----+----+----+----+-                           +----+----+----+----+----+----+----+----+----+----+
      * MAY REPRESENT UP TO 10 COUNTS                                               -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                      POLLUTANT= O3   LEVEL= 4

                                             UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                      QUANTILES(DEF=4)                                EXTREMES

N                114  SUM WGTS         114  100% MAX     6.64251     99%     6.39981      LOWEST    ID            HIGHEST    ID
MEAN         -2.6437  SUM         -301.382   75% Q3    -0.322598     95%     2.00581    -14.3836( FL         )   2.46769( TX         )
STD DEV      3.39301  VARIANCE     11.5125   50% MED    -2.16561     90%     1.14796    -12.1176( FL         )   3.17647( TX         )
SKEWNESS   -0.438425  KURTOSIS     1.04883   25% Q1     -4.89121     10%    -6.90998    -9.65842( TX         )   4.52323( VA         )
USS          2097.68  CSS          1300.92    0% MIN    -14.3836      5%    -8.68777    -9.36019( CA         )   5.02451( VA         )
CV          -128.343  STD MEAN    0.317785                            1%    -14.0437    -8.83392( TX         )   6.64251( VA         )
T:MEAN=0    -8.31915  PROB>|T|      0.0001  RANGE        21.0261
SGN RANK     -2496.5  PROB>|S|      0.0001  Q3-Q1        4.56861
NUM ^= 0         114                        MODE        -1.76678
D:NORMAL   0.0739136  PROB>D         0.128

STEM LEAF                   #  BOXPLOT                         NORMAL PROBABILITY PLOT
   6 6                      1     0         6.5+                                                 *
   5 0                      1     |            |                                              *+++
   4 5                      1     |            |                                            *++
   3 2                      1     |            |                                         ++*
   2 5                      1     |            |                                      +++*
   1 11222339               8     |            |                                   +******
   0 12224567899           11     |            |                                *****
  -0 99874442111           11  +-----+     -0.5+                             ****
  -1 88776655543222200     17  |     |         |                         ****
  -2 98765522211110        14  *--+--*         |                      ****
  -3 76442210               8  |     |         |                    ***
  -4 99977543333211        14  +-----+         |                 ****
  -5 9866522211            10     |            |             ****+
  -6 53110                  5     |            |           ***+
  -7 833                    3     |        -7.5+         +**
  -8 8664                   4     |            |      +***
  -9 74                     2     |            |   +**
 -10                                           | +++
 -11                                           |+
 -12 1                      1     0            |   *
 -13                                           |
 -14 4                      1     0       -14.5+*
     ----+----+----+----+                      +----+----+----+----+----+----+----+----+----+----+
                                                    -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                                     POLLUTANT= PB   LEVEL= 1

                                                            UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

           MOMENTS                                  QUANTILES(DEF=4)                                EXTREMES

N                1000  SUM WGTS        1000  100% MAX   42.2414     99%     26.995     LOWEST    ID        HIGHEST    ID
MEAN         0.110847  SUM          110.847   75% Q3          3     95%     11.475   -23.6458( VA      )       27( OH      )
STD DEV       6.72722  VARIANCE     45.2555   50% MED         0     90%    6.85484   -23.6458( VA      )       27( OH      )
SKEWNESS      1.11382  KURTOSIS     4.43422   25% Q1   -3.90244     10%   -7.55556   -20.4082( FL      )       27( OH      )
USS           45222.5  CSS          45210.2    0% MIN  -23.6458      5%        -10        -20( VA      )     28.5( KC      )
CV            6068.94  STD MEAN    0.212733                          1%   -13.7941      -19.5( FL      )  42.2414( NH      )
T:MEAN=0     0.521059  PROB>|T|    0.602441  RANGE      65.8872
SGN RANK     -11513.5  PROB>|S|    0.154601  Q3-Q1      6.90244
NUM ^= 0          922                        MODE             0
D:NORMAL    0.0925853  PROB>D          <.01
```

```
                   HISTOGRAM                                #   BOXPLOT                   NORMAL PROBABILITY PLOT
   42.5+*                                                   1      *          42.5+
       .                                                                          |                                                 *
       .                                                                          |
       .**                                                 10      *              |                                               ***
       .*                                                   7      0              |                                             **
       .**                                                 11      0              |                                           *** +++
       .****                                               27      0              |                                      +*****+++
       .***********                                        87      |              |                                +++*******
       .************************************************  377   *--+--*           |                       **************
       .****************************************          313   +-----+           |             ************
       .*******************                               146      |              |   *************++
       .**                                                 14      0              |*****++++
       .*                                                   4      0              |*++
  -22.5+*                                                   3      0         -22.5+*
        ----+----+----+----+----+----+----+----+----+---                          +----+----+----+----+----+----+----+----+----+----+
        * MAY REPRESENT UP TO 8 COUNTS                                                -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                          POLLUTANT= PB   LEVEL= 2

                                                 UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                 MOMENTS
                                               QUANTILES(DEF=4)
                                                                                   EXTREMES
N                 856  SUM WGTS        856  100% MAX    38.5333     99%    9.82887
MEAN        -0.985712  SUM        -843.769   75% Q3     1.66667     95%    6.04162     LOWEST    ID          HIGHEST    ID
STD DEV        5.6435  VARIANCE    31.8491   50% MED  -0.346739     90%    4.36839   -52.7263( DE      )   11.2195( OK      )
SKEWNESS     -2.13775  KURTOSIS    20.0867   25% Q1    -2.99213     10%    -7.1106   -41.6216( FL      )   11.7409( CT      )
USS           28062.7  CSS           27231    0% MIN   -52.7263      5%   -8.37333   -38.4615( IA      )   15.5193( PA      )
CV            -572.53  STD MEAN   0.192891                           1%    -18.837   -36.8504( VA      )   18.9376( PA      )
T:MEAN=0     -5.11021  PROB>|T|     0.0001  RANGE       91.2596                      -36.8504( VA      )   38.5333( NH      )
SGN RANK       -31742  PROB>|S|     0.0001  Q3-Q1       4.65879
NUM ^= 0          820                       MODE              0
D:NORMAL     0.119016  PROB>D          <.01


                     HISTOGRAM                                   #  BOXPLOT
   37.5+*                                                         1     *
       .
       .
       .
       .*                                                         2     0
       .*                                                         4     0
       .********                                                 56     0
       .***********************************************         326  +-----+
       .************************************************        332  *--+--*
   -7.5+*****************                                       113     0
       .**                                                       12     0
       .*                                                         4     0
       .
       .
       .*                                                         1     *
       .*                                                         3     *
       .*                                                         1     *
       .
  -52.5+*                                                         1     *
        ----+----+----+----+----+----+----+----+----+---
        * MAY REPRESENT UP TO 7 COUNTS


                          NORMAL PROBABILITY PLOT
   37.5+
       |                                                       *
       |
       |
       |
       |                                                      *
       |                                                  ++++**
       |                                         ++++***********
       |                             ***************
       |                  *************
   -7.5+          ***********++
       | ++***++++
       |+**
       |
       |
       |*
       |*
       |*
       |
  -52.5+*
        +----+----+----+----+----+----+----+----+----+----+
            -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                          POLLUTANT= PB_FLOW   LEVEL= 1

                                                     UNIVARIATE
VARIABLE= PERCENT DIFFERENCE


              MOMENTS                                      QUANTILES(DEF=4)                                         EXTREMES

N                   3  SUM WGTS          3  100% MAX   0.884956     99%   0.884956
MEAN         -2.09028  SUM        -6.27085   75% Q3    0.884956     95%   0.884956     LOWEST    ID          HIGHEST    ID
STD DEV       2.76289  VARIANCE    7.63357   50% MED   -2.58064     90%   0.884956   -4.57516( MO     )          .(        )
SKEWNESS     0.773508  KURTOSIS          .   25% Q1    -4.57516     10%   -4.57516   -2.58065( MO     )          .(        )
USS            28.375  CSS         15.2671    0% MIN   -4.57516      5%   -4.57516   0.884956( MO     )   -4.57516( MO     )
CV           -132.178  STD MEAN    1.59516                           1%   -4.57516         .(         )   -2.58065( MO     )
T:MEAN=0      -1.3104  PROB>|T|    0.32033  RANGE      5.46012                             .(         )   0.884956( MO     )
SGN RANK           -2  PROB>|S|   0.422678  Q3-Q1      5.46012
NUM ^= 0            3                       MODE       -4.57516
W:NORMAL     0.976356  PROB<W        0.678


STEM LEAF                       #  BOXPLOT
  0 9                           1  +-----+                      NORMAL PROBABILITY PLOT
 -0                                |     |          1+                                   +*+++++
 -2 6                           1  *--+--*           |                          +++++++
 -4 6                           1  +-----+           |                  ++++++*
    ----+----+----+----+                           -5+          ++++*++
                                                      +----+----+----+----+----+----+----+----+----+----+
                                                          -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

POLL= PB_FLOW   LEVEL= 2

UNIVARIATE

```
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                      QUANTILES(DEF=4)
                                                                                             EXTREMES
N                107  SUM WGTS         107  100% MAX   13.8603      99%    13.5239    LOWEST    ID          HIGHEST    ID
MEAN        0.574497  SUM          61.4711   75% Q3     2.7027      95%    6.13097  -9.91189( TX       )  6.34231( MD       )
STD DEV      3.50337  VARIANCE     12.2736   50% MED  0.348351      90%    4.75702  -7.79412( HI       )  6.45161( KC       )
SKEWNESS    0.239241  KURTOSIS     1.78404   25% Q1   -1.43541      10%   -3.43928  -6.40177( PA       )  6.64574( NY       )
USS          1336.32  CSS             1301    0% MIN  -9.91189       5%    -5.1975  -5.83333( MO       )  9.65517( GA       )
CV           609.816  STD MEAN    0.338684                           1%   -9.74247  -5.25164( PA       )  13.8603( KC       )
T:MEAN=0     1.69626  PROB>|T|    0.092771  RANGE      23.7722
SGN RANK         536  PROB>|S|   0.0869158  Q3-Q1      4.13811
NUM ^= 0         105                        MODE     -0.390727
D:NORMAL    0.056305  PROB>D          >.15

STEM LEAF                             #  BOXPLOT
  12 9                                1     0
  10
   8 7                                1     0
   6 356                              3     |
   4 0111145790238                   13     |
   2 1123334467778890256             19  +-----+
   0 122334569000222335666           21  *--+--*
  -0 766644311999986544422222200     27  +-----+
  -2 8432186665433                   13     |
  -4 831861                           6     |
  -6 84                               2     0
  -8 9                                1     0
     ----+----+----+----+----+--
```

NORMAL PROBABILITY PLOT

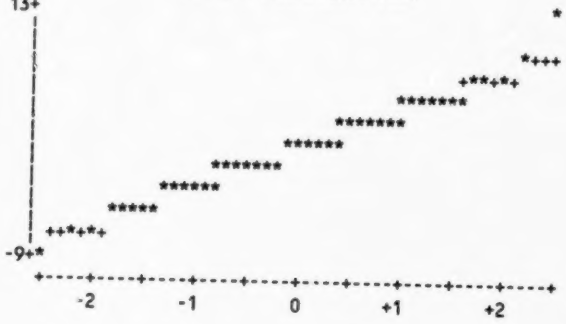


TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                                         POLLUTANT= PM10   LEVEL= 2

                                                                  UNIVARIATE

VARIABLE= PERCENT DIFFERENCE

                MOMENTS                                       QUANTILES(DEF=4)                            EXTREMES

N              1226  SUM WGTS       1226  100% MAX   36.8421      99%     9.5546      LOWEST   ID           HIGHEST   ID
MEAN     -0.0495442  SUM        -60.7412   75% Q3    2.21944      95%    6.49352    -14.3994( OH      )    11.691( AZ      )
STD DEV     4.02038  VARIANCE    16.1635   50% MED         0      90%     4.9239    -11.8644( NM      )   12.1372( TX      )
SKEWNESS   0.667084  KURTOSIS    6.03036   25% Q1   -2.55495      10%   -4.77555    -11.7647( OH      )   15.3061( OH      )
USS         19803.2  CSS         19800.2    0% MIN  -14.3994       5%   -6.51956    -11.6379( OH      )   16.6667( MO      )
CV          -8114.74  STD MEAN  0.114821                           1%   -10.4039    -11.5625( OH      )   36.8421( CA      )
T:MEAN=0   -0.43149  PROB>|T|   0.666188  RANGE      51.2415
SGN RANK      -9859  PROB>|S|   0.388286  Q3-Q1      4.77438
NUM ^= 0       1161                       MODE             0
D:NORMAL  0.0438695  PROB>D          <.01

                      HISTOGRAM                             #  BOXPLOT                        NORMAL PROBABILITY PLOT
  37.5+*                                                    1     *         37.5+                                                   *
      .                                                                         |
      .                                                                         |
      .                                                                         |
      .*                                                    2     0             |
  12.5+*                                                    6     0             |                                                   *
      .**********                                         108     0         12.5+                                                   *
      .***********************************************    514  *-----*          |                                       ************
      .********************************************       482  +--+--+          |                          ***************
      .*********                                           98     |             |             ***************
 -12.5+**                                                  15     0             | ++***********
       ----+----+----+----+----+----+----+----+----+--                     -12.5+***
       * MAY REPRESENT UP TO 11 COUNTS                                           +----+----+----+----+----+----+----+----+----+----+
                                                                                     -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                         POLLUTANT= SO2   LEVEL= 1

                                                UNIVARIATE
VARIABLE= PERCENT DIFFERENCE


              MOMENTS                                   QUANTILES(DEF=4)                              EXTREMES

N               1235  SUM WGTS        1235  100% MAX    59.7222     99%       18.72      LOWEST    ID        HIGHEST    ID
MEAN       -0.142261  SUM         -175.692   75% Q3     3.84615     95%     10.6667   -66.2162( FL    )         24( IL    )
STD DEV      7.32567  VARIANCE     53.6655   50% MED          0     90%           8   -54.6667( CA    )    24.7059( WV    )
SKEWNESS   -0.417677  KURTOSIS     11.2886   25% Q1    -4.05405     10%       -8.75   -20.7792( FL    )    26.1538( OH    )
USS          66248.2  CSS          66223.2    0% MIN   -66.2162      5%    -11.4216   -20.7101( SC    )    28.0702( TX    )
CV          -5149.47  STD MEAN    0.208456                           1%    -17.5432        -20( NM    )    59.7222( CO    )
T:MEAN=0    -0.68245  PROB>|T|    0.495082  RANGE       125.938
SGN RANK       -5027  PROB>|S|    0.629662  Q3-Q1       7.90021
NUM ^= 0        1092                        MODE              0
D:NORMAL   0.0737447  PROB>D          <.01


                    HISTOGRAM                          #   BOXPLOT                   NORMAL PROBABILITY PLOT
   55+*                                                1      *         55+
     .                                                                     |                                                  *
     .                                                                     |
     .*                                                                    |
     .*****                                            6      0            |                                                  *
     .**********************************************   59     0            |                                        ++***********
  -5+********************************                 633   *-----*       |                         ********************
     .*******                                         447   +--+--+    -5+            ***************++
     .*                                                85     0            |************+
     .                                                  2     0            |*
     .                                                                     |
     .*                                                                    |
  -65+*                                                 1     *            |*
      ----+----+----+----+----+----+----+----+----+-    1     *       -65+*
      * MAY REPRESENT UP TO 14 COUNTS                                      +----+----+----+----+----+----+----+----+----+----+
                                                                               -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                          POLLUTANT= SO2   LEVEL= 2

VARIABLE= PERCENT DIFFERENCE                     UNIVARIATE

                MOMENTS
                                                  QUANTILES(DEF=4)
N                 1211  SUM WGTS                                                              EXTREMES
MEAN         -0.100437  SUM              1211  100% MAX    56.213    99%    14.1223
STD DEV        6.05258  VARIANCE     -121.629   75% Q3    3.42857    95%    9.25482     LOWEST    ID        HIGHEST    ID
SKEWNESS       0.60918  KURTOSIS      36.6338   50% MED         0    90%    6.97443   -29.6703( FL    )   17.6136( WV    )
USS            44339.1  CSS           7.60164   25% Q1   -3.78378    10%   -7.02703   -28.3333( CA    )   18.4932( ME    )
CV            -6026.26  STD MEAN      44326.9    0% MIN  -29.6703     5%   -9.41314   -24.2775( NY    )        25( OH    )
T:MEAN=0     -0.577463  PROB>|T|     0.173928                         1%   -14.6912   -23.1183( CA    )   31.9018( OH    )
SGN RANK       -9443.5  PROB>|S|     0.563734  RANGE      85.8833                     -18.617( FL     )    56.213( CO    )
NUM ^= 0          1154               0.404341  Q3-Q1      7.21235
D:NORMAL     0.0382366  PROB>D           <.01  MODE             0
```

```
                       HISTOGRAM                                #   BOXPLOT
 57.5+*                                                         1      *
     .
     .
     .
     .
     .*                                                         1      *
     .
     .*                                                         1      0
     .*                                                         7      0
     .****                                                     32      0
     .******************                                      158      |
     .***********************************************         418   *-----*
     .*****************************************               366   +--+--+
     .*********************                                   183      |
     .****                                                     35      0
     .*                                                         5      0
     .*                                                         2      0
-27.5+*                                                         2      *
      ----+----+----+----+----+----+----+----+----+--
      * MAY REPRESENT UP TO 9 COUNTS
```

```
                        NORMAL PROBABILITY PLOT
 57.5+
     |                                                     *
     |
     |
     |
     |
     |                                                    *
     |
     |                                                    *
     |                                                   **
     |                                           +********
     |                                   +**********
     |                          ************
     |                 ***********
     |        ***********
     | *******+
     |*
     |*
-27.5+*
      +----+----+----+----+----+----+----+----+----+----+
          -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                              POLLUTANT= SO2   LEVEL= 3

                                     UNIVARIATE

VARIABLE= PERCENT DIFFERENCE

              MOMENTS                              QUANTILES(DEF=4)                          EXTREMES

N              1003  SUM WGTS          1003  100% MAX    41.688    99%    14.487     LOWEST    ID          HIGHEST    ID
MEAN      -0.439221  SUM           -440.539   75% Q3       2.75    95%   9.10932  -27.4194( NY     )  17.9775( FL     )
STD DEV     5.96628  VARIANCE       35.5964   50% MED -0.539084    90%   6.80367  -25.1781( CA     )  22.4747( OH     )
SKEWNESS   0.418318  KURTOSIS       4.00115   25% Q1   -4.03587    10%  -7.31761  -24.8673( SC     )  26.7773( AR     )
USS         35861.1  CSS            35667.6    0% MIN  -27.4194     5%   -9.7852  -18.4492( FL     )  28.1081( OH     )
CV         -1358.38  STD MEAN      0.188388                         1%  -13.9212  -16.8269( OH     )   41.688( CO     )
T:MEAN=0   -2.33147  PROB>|T|     0.0199259  RANGE      69.1073
SGN RANK   -26259.5  PROB>|S|    0.00283045  Q3-Q1      6.78587
NUM ^= 0        975                          MODE             0
D:NORMAL  0.0506184  PROB>D            <.01

                  HISTOGRAM                           #   BOXPLOT
  42.5+*                                              1      *
      .
      .
      .*                                              2      *
      .*                                              1      0
      .*                                              4      0
      .****                                          28      0
   7.5+****************                             126      |
      .**************************************       301  +-----+
      .*********************************************356  *--+--*
      .******************                           137     |
      .*****                                         40     |
      .*                                              4     0
      .*                                              1     *
 -27.5+*                                              2     *
       ----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 8 COUNTS

                    NORMAL PROBABILITY PLOT
      42.5+                                                 *
          |
          |
          |                                                 *
          |                                                 *
          |                                                **
          |                                         *******+
       7.5+                               **********
          |                     ***********
          |          *************
          |   **********+
          |*********
          |*
          |*
     -27.5+*
          +----+----+----+----+----+----+----+----+----+----+
              -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                                  POLLUTANT= SO2   LEVEL= 4

                                                          UNIVARIATE
VARIABLE= PERCENT DIFFERENCE


               MOMENTS                                QUANTILES(DEF=4)
                                                                                                   EXTREMES
N                 101  SUM WGTS         101  100% MAX     11.25   99%     11.225       LOWEST  ID         HIGHEST  ID
MEAN         -0.62063  SUM         -62.6836   75% Q3    2.03784   95%    8.73842      -14.073( NC   )     8.82709( PA   )
STD DEV       5.21445  VARIANCE     27.1905   50% MED -0.124069   90%    6.89655     -13.8365( MT   )     9.58231( FL   )
SKEWNESS   -0.0841918  KURTOSIS    0.170534   25% Q1   -3.96961   10%   -6.72372     -13.6364( IN   )        9.75( CA   )
USS           2757.95  CSS          2719.05    0% MIN   -14.073    5%   -8.32108     -11.5342( MO   )          10( CA   )
CV           -840.187  STD MEAN    0.518857                        1%   -14.0682     -8.33333( PR   )       11.25( CA   )
T:MEAN=0     -1.19615  PROB>|T|    0.234467  RANGE       25.323
SGN RANK         -319  PROB>|S|    0.244465  Q3-Q1      6.00745
NUM ^= 0           96                        MODE             0
D:NORMAL    0.0658908  PROB>D          >.15


STEM LEAF                       #  BOXPLOT
 10 03                          2      0         11+              NORMAL PROBABILITY PLOT
  8 867                         3      |           |                                              ++++*
  6 2992259                     7      |           |                                         ***+*
  4 008800017                   9      |           |                                    *****
  2 1587                        4   +-----+        |                                 ****
  0 2455688911235556689        18   |     |        |                              +**
 -0 320664211100000            15   *--+--*        |                         *******
 -2 977542210008754311         18   +-----+        |                      ***+
 -4 94443963100                11      |           |                 ******
 -6 54985410                    8      |           |             *****
 -8 32                          2      |           |         *****
-10 5                           1      |           |       **+
-12 86                          2      0           |   +++*
-14 1                           1      0           |++++* *
    ----+----+----+----+                        -15+*
                                                   +----+----+----+----+----+----+----+----+----+----+
                                                       -2        -1         0        +1        +2
```

TABLE B-2. SUMMARY STATISTICS FOR 1988 PARS ACCURACY DATA

```
                                               POLLUTANT= TSP   LEVEL= 2

                                                        UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                 QUANTILES(DEF=4)                                   EXTREMES

N                2814  SUM WGTS        2814  100% MAX    28.5714      99%    12.6487        LOWEST    ID         HIGHEST    ID
MEAN         0.559668  SUM          1574.91   75% Q3     2.47041      95%    6.49513   -27.8022( OH      )   20.7692( IN      )
STD DEV       3.88998  VARIANCE     15.1319   50% MED   0.182487      90%    4.95099   -15.4954( AL      )   23.7624( TX      )
SKEWNESS      0.80406  KURTOSIS     5.61777   25% Q1    -1.59141      10%   -3.72094     -14.37( AL      )        25( CA      )
USS           43447.5  CSS          42566.1    0% MIN   -27.8022       5%   -4.97823   -13.9394( DE      )      25.6( OK      )
CV            695.051  STD MEAN   0.0733306                           1%   -7.99386   -13.7045( TX      )   28.5714( IA      )
T:MEAN=0      7.63213  PROB>|T|      0.0001  RANGE       56.3736
SGN RANK       253977  PROB>|S|      0.0001  Q3-Q1       4.06182
NUM ^= 0         2670                         MODE              0
D:NORMAL    0.0644391  PROB>D          <.01

                     HISTOGRAM                                   #   BOXPLOT                    NORMAL PROBABILITY PLOT
  27.5+*                                                         2      *        27.5+
      .*                                                         4      *            |                                                          *
      .*                                                        10      *            |                                                          *
      .**                                                       37      0            |                                                          *
      .*********                                               225      0            |                                                      *****
      .*********************************************** 1299   *--+--*             |                                           +**********+++
      .****************************************        1097   +-----+             |                             ******************
      .*****                                                   126      0            |              *****************
      .*                                                        12      0            |***********+
      .*                                                         1      *            |*
      .                                                                              |*
 -27.5+*                                                         1      *       -27.5+*
       ----+----+----+----+----+----+----+----+----+--                                +----+----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 28 COUNTS                                                      -2        -1         0        +1        +2
```

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

```
                                            POLLUTANT= CO   LEVEL= 1

                                                    UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                             QUANTILES(DEF=4)                               EXTREMES

N                 232  SUM WGTS          232  100% MAX        20     99%     18.1183     LOWEST     ID        HIGHEST    ID
MEAN        -0.618534  SUM            -143.5   75% Q3    2.04167     95%       8.225        -30 ( TN     )         10 ( MT     )
STD DEV        5.6463  VARIANCE      31.8807   50% MED         0     90%           5   -16.6667 ( OR     )       12.5 ( KC     )
SKEWNESS       -0.462  KURTOSIS      4.39034   25% Q1   -3.33333     10%    -6.66667   -16.6667 ( CO     )    16.6667 ( WI     )
USS           7453.19  CSS           7364.43    0% MIN       -30      5%    -8.33333   -16.6667 ( GA     )    18.8333 ( KC     )
CV           -912.851  STD MEAN     0.370698                          1%    -16.6667   -15.1667 ( WV     )         20 ( OH     )
T:MEAN=0     -1.66857  PROB>|T|    0.0965576  RANGE           50
SGN RANK      -1611.5  PROB>|S|    0.0651945  Q3-Q1        5.375
NUM ^= 0          209                         MODE             0
D:NORMAL    0.0998089  PROB>D           <.01

                HISTOGRAM                     #   BOXPLOT                     NORMAL PROBABILITY PLOT
 17.5+*                                   3      0          17.5+                                               * *
     .*                                   1      0              |                                           +++*+++
     .******                             17      |              |                                  +++*********
  2.5+*********************************  99   *-----*        2.5+                        **************
     .***************************        80   +--+--+           |             *************+
     .********                           22      |              |       *******+++
-12.5+**                                  5      0         -12.5++++++****
     .**                                  4      0              |*****
     .                                                          |
-27.5+*                                   1      *         -27.5+*
      ----+----+----+----+----+----+---                         +----+----+----+----+----+----+----+----+----+----+
       * MAY REPRESENT UP TO 3 COUNTS                               -2        -1         0        +1        +2
```

```
                                          TABLE B-3.  SUMMARY STATISTICS FOR 1988 NPAP DATA

                                                     POLLUTANT= CO   LEVEL= 2

                                                             UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                                      QUANTILES(DEF=4)                                     EXTREMES

N                 229  SUM WGTS          229  100% MAX     30.069      99%     12.6552     LOWEST    ID          HIGHEST    ID
MEAN          1.85032  SUM           423.724   75% Q3     3.75862      95%           7   -14.8276 ( WV    )    8.27586 ( MO    )
STD DEV       3.81416  VARIANCE      14.5479   50% MED     1.7931      90%     5.51724   -9.65517 ( TX    )    9.65517 ( OH    )
SKEWNESS      1.42369  KURTOSIS      14.1116   25% Q1           0      10%    -2.06896   -8.34483 ( FL    )    12.4138 ( OH    )
USS           4100.94  CSS           3316.91    0% MIN   -14.8276       5%    -3.27586   -5.17241 ( GA    )    12.7586 ( FL    )
CV            206.135  STD MEAN     0.252047                            1%    -9.26207   -5.17241 ( FL    )     30.069 ( KC    )
T:MEAN=0      7.34118  PROB>|T|       0.0001  RANGE       44.8966
SGN RANK         6972  PROB>|S|       0.0001  Q3-Q1       3.75862
NUM ^= 0          211                         MODE        2.06896
D:NORMAL    0.0998889  PROB>D           <.01

                 HISTOGRAM                   #  BOXPLOT                         NORMAL PROBABILITY PLOT
   31+*                                      1      *          31+
      .                                                          |                                                  *
      .                                                          |
      .                                                          |
      .                                                          |
      .                                                          |
      .                                                          |
      .                                                          |
      .                                                          |
      .*                                     2      0            |
      .                                                          |                                                * *
      .**                                    3      0            |                                               ++++
      .*******                              14      |            |                                          +++**
      .****************                     31      |            |                                    +++******
      .*******************************      62   +-----+         |                               ++******
      .*******************************      62   *--+--*         |                         *********
      .***************                      30      |            |                  ********
      .*********                            17      |            |             ******++
      .**                                    4      |            |       ******++
      .                                                          |    ***+++
      .*                                     2      0            |+++++
      .                                                          |* *
      .                                                          |
  -15+*                                      1      *         -15+*
      ----+----+----+----+----+----+-                            +----+----+----+----+----+----+----+----+----+----+
      * MAY REPRESENT UP TO 2 COUNTS                                 -2        -1         0        +1        +2
```

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

```
                                    POLLUTANT= CO   LEVEL= 3

                                           UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                   MOMENTS
                                                         QUANTILES(DEF=4)
                                                                                        EXTREMES
N                231  SUM WGTS          231  100% MAX    31.6111     99%     22.0133
MEAN         2.17857  SUM            503.25   75% Q3     3.33333     95%     6.77778    LOWEST    ID          HIGHEST   ID
STD DEV      3.53608  VARIANCE      12.5039   50% MED    1.66667     90%           5  -7.22222 ( MT    )    8.05556 ( NJ    )
SKEWNESS     3.80961  KURTOSIS      28.0077   25% Q1    0.694444     10%   -0.833333  -6.91667 ( FL    )    8.33333 ( MO    )
USS          3972.26  CSS            2875.9    0% MIN   -7.22222      5%    -1.86111  -3.88889 ( PA    )    15.6667 ( FL    )
CV           162.312  STD MEAN     0.232657                           1%    -5.94778  -3.05556 ( PA    )         25 ( OH    )
T:MEAN=0     9.36387  PROB>|T|       0.0001  RANGE       38.8333                      -2.91667 ( WV    )    31.6111 ( KC    )
SGN RANK      9743.5  PROB>|S|       0.0001  Q3-Q1       2.63889
NUM ^= 0         222                         MODE        1.38889
D:NORMAL    0.152216  PROB>D           <.01

               HISTOGRAM                             #   BOXPLOT
   31+*                                              1      *                               NORMAL PROBABILITY PLOT
     .                                                                    31+                                                  *
     .                                                                      |
     .*                                              1      *               |
     .                                                                      |                                                  *
     .                                                                      |
     .                                                                      |
     .                                                                      |
     .*                                              1      *               |
     .                                                                      |                                                *
     .                                                                      |
     .*                                              2      0               |                                                 +++
     .*****                                         10      0               |                                            +++++**
     .*************                                 26      |               |                                        ++++*******
     .*********************************             65   +--+--+            |                                   +++********
     .********************************************  88   *-----*            |                              +**********
     .**************                                27      |               |                  *************
     .****                                           8      0               |            *********+++
     .                                                                      |      ********+++++
   -7+*                                              2      0               |      ++++++
      ----+----+----+----+----+----+----+----+----                       -7+*+
     * MAY REPRESENT UP TO 2 COUNTS                                          +----+----+----+----+----+----+----+----+----+----+
                                                                                 -2        -1         0        +1        +2
```

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

```
                                        POLLUTANT= PB   LEVEL= 1

                                               UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS                                   QUANTILES(DEF=4)                                  EXTREMES

N                  113  SUM WGTS           113  100% MAX   22.8571    99%    22.6571     LOWEST    ID       HIGHEST    ID
MEAN          -2.50033  SUM           -282.537   75% Q3    2.85714    95%    7.14286   -58.6207 ( HI    )   7.14286 ( FL    )
STD DEV        10.6799  VARIANCE       114.061   50% MED  -1.42857    90%    5.71428        -50 ( VA    )   8.57143 ( GA    )
SKEWNESS      -2.56633  KURTOSIS       11.6421   25% Q1   -5.17241    10%   -11.8128   -47.1429 ( HI    )   18.5714 ( KY    )
USS            13481.2  CSS            12774.8    0% MIN  -58.6207     5%   -17.7586   -20.6897 ( AR    )   21.4286 ( OK    )
CV            -427.141  STD MEAN       1.00468                         1%   -57.4138   -18.9655 ( CA    )   22.8571 ( CA    )
T:MEAN=0      -2.48867  PROB>|T|      0.014293  RANGE      81.4778
SGN RANK          -672  PROB>|S|     0.0269947  Q3-Q1      8.02956
NUM ^= 0           103                          MODE             0
D:NORMAL      0.189861  PROB>D            <.01

STEM LEAF                               #  BOXPLOT
   2 13                                 2     0                              NORMAL PROBABILITY PLOT
   1 9                                  1     0          22.5+                                                    *++*
   1                                                         |                                               +++*+
   0 56666667779                       11     |              |                                          +++++
   0 1111111222222233333333333444444   31  +-----+           |                                      ++++****** *
  -0 4333333333332222111111110000000000 34 *--+--*           |                             *************
  -0 9977777776655555555               19  +-----+           |                       ******++
  -1 443221100                          9     |              |                 *******++
  -1 97                                 2     0              |           *****++++
  -2 1                                  1     0         -17.5+          **++++
  -2                                                         |      ++*++
  -3                                                         |++++
  -3                                                         |
  -4                                                         |
  -4 7                                  1     *              |  * *
  -5 0                                  1                    |
  -5 9                                  1     *         -57.5+*
     ----+----+----+----+----+----+----                       +----+----+----+----+----+----+----+----+----+----+
MULTIPLY STEM.LEAF BY 10**+01                                     -2        -1         0        +1        +2
```

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

```
                                        POLLUTANT= PB   LEVEL= 2

                                               UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS
                                                 QUANTILES(DEF=4)
                                                                                       EXTREMES
N               115  SUM WGTS         115  100% MAX    22.2973    99%    21.973
MEAN        3.96441  SUM          455.908   75% Q3     11.4865    95%   16.3513     LOWEST    ID          HIGHEST    ID
STD DEV     10.9813  VARIANCE     120.589   50% MED    5.11364    90%   13.5135  -63.5135 ( DC    )    16.8919 ( NJ    )
SKEWNESS   -2.75563  KURTOSIS      13.404   25% Q1           0    10%  -5.68182  -38.6364 ( HI    )    17.5676 ( IL    )
USS         15554.6  CSS          13747.2    0% MIN   -63.5135     5%  -13.1818  -23.8636 ( NV    )    18.9189 ( NH    )
CV          276.997  STD MEAN     1.02401                          1%  -59.5332  -21.5909 ( AR    )    20.2703 ( FL    )
T:MEAN=0    3.87145  PROB>|T| .000180842  RANGE      85.8108                     -15.9091 ( FL    )    22.2973 ( MO    )
SGN RANK       1948  PROB>|S|     0.0001  Q3-Q1      11.4865
NUM ^= 0        113                       MODE       12.1622
D:NORMAL   0.155019  PROB>D         <.01

STEM LEAF                            #  BOXPLOT
   2 02                              2     |                                NORMAL PROBABILITY PLOT
   1 66789                           5     |          22.5+
   1 01111111112222222222334444444  29  +-----+          |                                        +++++  *  *
   0 5555555556666677777777888999   28  *-----*          |                                    ++++ ** **
   0 111111222222222233344          21  +--+--+          |                              ************
  -0 432221111111100                15     |             |                         ******
  -0 96666655                        8     |             |                  ********
  -1 21                              2     |             |             ******+++
  -1 6                               1     |             |          ****+++
  -2 42                              2     0             |        **+++
  -2                                                     |     ++++*
  -3                                                     |++++ **
  -3 9                               1     *             |
  -4                                                     |  *
  -4                                                     |
  -5                                                     |
  -5                                                     |
  -6 4                                                   |
     ----+----+----+----+----+----   1     *       -62.5+*
MULTIPLY STEM.LEAF BY 10**+01                           +----+----+----+----+----+----+----+----+----+----+
                                                             -2        -1         0        +1        +2
```

```
                                   TABLE B-3.  SUMMARY STATISTICS FOR 1988 NPAP DATA

                                              POLLUTANT= PB   LEVEL= 3

                                                     UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                 MOMENTS
                                                         QUANTILES(DEF=4)
                                                                                                     EXTREMES
N                 114  SUM WGTS          114  100% MAX    14.3162     99%     14.0837
MEAN         -2.52125  SUM          -287.422   75% Q3     1.11838     95%     7.14188      LOWEST    ID        HIGHEST    ID
STD DEV       10.0974  VARIANCE      101.957   50% MED   -1.61458     90%     4.29526   -75.6839 ( IL    )   8.05471 ( FL    )
SKEWNESS     -4.81764  KURTOSIS      30.8821   25% Q1    -3.67421     10%    -7.15812   -56.4103 ( HI    )   8.76068 ( MI    )
USS           12245.8  CSS           11521.1    0% MIN   -75.6839      5%    -12.3932   -28.4188 ( AL    )   12.1581 ( MO    )
CV           -400.491  STD MEAN     0.945706                            1%    -72.7928   -13.2479 ( MO    )    12.766 ( AR    )
T:MEAN=0       -2.666  PROB>|T|   0.00880143  RANGE       90.0001                        -13.0342 ( FL    )   14.3162 ( OK    )
SGN RANK      -1196.5  PROB>|S|  .000360767  Q3-Q1       4.79259
NUM ^= 0          110                         MODE       -3.4188
D:NORMAL     0.267184  PROB>D           <.01

             HISTOGRAM                     #   BOXPLOT
  12.5+**                                                                     NORMAL PROBABILITY PLOT
      .***                                 3      0         12.5+
      .***************                     6      0             |                             +++++  * *  *
      .*****************************      29   +-----+          |                        +++++ **** *
      .******                             57   *--+--*          |                   +************
      .**                                 12      |             |             **************
      .                                    4      0             |        ******  +++++
      .                                                         |     * **   +++++
      .*                                                        |      +++++
 -32.5+                                    1      *             |   +++++
      .                                                         |+++  *
      .                                                   -32.5+
      .                                                         |
      .                                                         |
      .*                                                        |
                                           1      *             |  *
      .                                                         |
      .                                                         |
 -77.5+*                                                        |
      ----+----+----+----+----+----        1      *       -77.5+*
      * MAY REPRESENT UP TO 2 COUNTS                            +----+----+----+----+----+----+----+----+----+----+
                                                                     -2        -1         0        +1        +2
```

TABLE B-3. SUMMARY STATISTICS FOR 1988 NPAP DATA

```
                                        POLL= PB_FLOW   LEVEL= 2

                                              UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

              MOMENTS
                                                         QUANTILES(DEF=4)
                                                                                                      EXTREMES
N                 23  SUM WGTS            23  100% MAX     27.1429      99%      27.1429
MEAN         4.46067  SUM            102.595   75% Q3      6.89655      95%      24.6967       LOWEST    ID           HIGHEST    ID
STD DEV      7.09279  VARIANCE       50.3077   50% MED     2.23881      90%      14.2415     -4.54545 ( MO     )    7.37705 ( MD     )
SKEWNESS     1.59726  KURTOSIS       3.65709   25% Q1            0      10%     -3.46843     -3.53982 ( TX     )    10.6509 ( PA     )
USS          1564.41  CSS            1106.77    0% MIN    -4.54545       5%     -4.34433     -3.36134 ( TX     )    13.2353 ( MT     )
CV           159.007  STD MEAN       1.47895                             1%     -4.54545     -1.07527 ( KY     )    14.9123 ( WV     )
T:MEAN=0     3.01611  PROB>|T|    0.00636386  RANGE        31.6883                           -0.900901 ( TX     )    27.1429 ( OH     )
SGN RANK        86.5  PROB>|S|    0.00523759  Q3-Q1        6.89655
NUM ^= 0          22                          MODE        -4.54545
W:NORMAL    0.876191  PROB<W            <.01

STEM LEAF                    #  BOXPLOT
   2 7                       1     0                              NORMAL PROBABILITY PLOT
   1 135                     3     |           25+
   0 1112224566677          13  *--+--*          |                                                      *   ++++
  -0 543110                  6     |             |                                       ++*+*++*++++++
      ----+----+----+----+                       |                          **+*********+***
 MULTIPLY STEM.LEAF BY 10**+01                 -5+       +*+++*++*+*+*+
                                                  +----+----+----+----+----+----+----+----+----+----+
                                                      -2        -1         0        +1        +2
                                              TABLE B-3.  SUMMARY STATISTICS FOR 1988 NPAP DATA

                                                   POLLUTANT= PM10   LEVEL= 2

                                                          UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

                MOMENTS                                     QUANTILES(DEF=4)                                    EXTREMES

N               133  SUM WGTS        133  100% MAX    34.5238     99%     34.5098     LOWEST    ID          HIGHEST    ID
MEAN        1.18269  SUM         157.298   75% Q3     4.76234     95%     22.7569    -35.514 ( KC     )    22.9167 ( NJ     )
STD DEV     10.1191  VARIANCE    102.396   50% MED          0     90%     14.4938   -30.8642 ( HI     )         25 ( IA     )
SKEWNESS   0.441454  KURTOSIS    2.94593   25% Q1    -4.54583     10%    -8.53269   -16.9355 ( AZ     )    29.8701 ( TX     )
USS         13702.3  CSS         13516.2    0% MIN    -35.514      5%    -11.5828   -13.5593 ( AZ     )    34.4828 ( IA     )
CV          855.595  STD MEAN   0.877435                           1%    -33.9331   -13.1313 ( HI     )    34.5238 ( IA     )
T:MEAN=0     1.3479  PROB>|T|   0.179999  RANGE       70.0378
SGN RANK        273  PROB>|S|   0.501947  Q3-Q1       9.30817
NUM ^= 0        125                       MODE              0
D:NORMAL    0.11981  PROB>D         <.01

STEM LEAF                                   #  BOXPLOT                     NORMAL PROBABILITY PLOT
   3 5                                      1               37.5+
   3 04                                     2     *             |                                                * *
   2 5                                      1     0             |                                               *  ++
   2 00333                                  5     0         22.5+                                          ****++++
   1 5566                                   4     0             |                                       **+++
   1 01224                                  5     |             |                                  ++***
   0 555555556666667777889                 21     |          7.5+                             +++*****
   0 111111111112222222344444444           27  *--+--*          |                        *********
  -0 444333333332222222221111100000000     33  +-----+          |                  ******
  -0 99888777777666666655555               23     |         -7.5+          *********
  -1 43311000                               8     |             |      *****+++
  -1 7                                      1     |             |    *+++++
  -2                                                       -22.5++++++
  -2                                                            |
  -3 1                                      1     0             |  *
  -3 6                                      1     *        -37.5+*
     ----+----+----+----+----+----+---                          +----+----+----+----+----+----+----+----+----+----+
MULTIPLY STEM.LEAF BY 10**+01                                          -2        -1         0        +1        +2
```

```
                                   TABLE B-3.  SUMMARY STATISTICS FOR 1988 NPAP DATA

                                            POLLUTANT= TSP   LEVEL= 2

                                                     UNIVARIATE
VARIABLE= PERCENT DIFFERENCE

               MOMENTS                                  QUANTILES(DEF=4)                                    EXTREMES

N                511  SUM WGTS         511  100% MAX   73.0769       99%     32.5765
MEAN         2.29188  SUM          1171.15   75% Q3    5.40541       95%     15.3509     LOWEST    ID          HIGHEST    ID
STD DEV       9.4472  VARIANCE     89.2496   50% MED   1.66667       90%     11.5968   -47.8022 ( PA    )    32.9114 ( KY    )
SKEWNESS    0.936577  KURTOSIS     11.6694   25% Q1    -1.5748       10%    -5.53645   -37.6812 ( NB    )     40.625 ( OK    )
USS          48201.4  CSS          45517.3    0% MIN  -47.8022        5%    -9.83333   -35.2113 ( NB    )    48.4375 ( PR    )
CV           412.204  STD MEAN    0.417919                            1%    -26.7802    -29.375 ( AZ    )    51.5385 ( NY    )
T:MEAN=0     5.48401  PROB>|T|      0.0001  RANGE      120.879                         -26.8657 ( OH    )    73.0769 ( OH    )
SGN RANK       21462  PROB>|S|      0.0001  Q3-Q1      6.98021
NUM ^= 0         482                        MODE             0
D:NORMAL    0.132201  PROB>D          <.01

                    HISTOGRAM                          #   BOXPLOT
   75+*                                                                                 NORMAL PROBABILITY PLOT
     .                                                 1      *                 75+
     .*                                                                            |                                               *
     .*                                                1      *                    |
     .*                                                2      *                    |                                               *
     .**                                               2      *                    |                                               *
   15+*********                                        8      0                    |                                             **
     .***********************************************  49     0                 15+                                         ****+++
     .*************************                       279   *--+--*                |                                   +++*********
     .***                                             145   +-----+                |                        ******************
     .**                                               14     0                    |        ***************+
     .*                                                 7     0                    |  +++*****+++
  -45+*                                                 2     *                    |*****
      ----+----+----+----+----+----+----+----+----+--   1     *                    |*
      * MAY REPRESENT UP TO 6 COUNTS                                            -45+*
                                                                                    +----+----+----+----+----+----+----+----+----+----+
                                                                                        -2        -1        0        +1        +2
```

APPENDIX C

PROBABILITY LIMITS FOR PARS PRECISION DATA

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

-- POLLUTANT = CO --

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	1	5	34	1.147	9.684	-17.833	20.127
1	CT	1	3	5	27	-1.596	4.912	-11.224	8.032
1	CT	1	4	5	31	-0.088	6.630	-13.082	12.906
1	MA	1	1	8	49	1.394	2.245	-3.006	5.794
1	MA	1	3	7	49	1.289	2.247	-3.114	5.692
1	MA	1	4	7	44	1.496	2.823	-4.038	7.029
1	NH	1	1	2	46	0.085	2.347	-4.515	4.686
1	NH	1	2	2	46	-3.934	3.131	-10.070	2.202
1	NH	1	4	2	50	-0.507	3.840	-8.032	7.019
1	RI	1	1	2	26	2.473	1.815	-1.084	6.030
1	RI	1	4	2	25	0.030	2.353	-4.582	4.643
2	NJ	1	3	8	46	-0.478	3.403	-7.148	6.191
2	NY	1	3	15	146	0.732	1.945	-3.081	4.545
3	DC	1	2	2	14	1.770	1.726	-1.614	5.154
3	DC	1	3	2	14	0.333	2.227	-4.033	4.698
3	DC	1	4	2	12	-1.449	2.493	-6.335	3.438
3	DE	1	4	2	13	-1.098	5.585	-12.045	9.849
3	MD	1	2	3	27	0.378	1.120	-1.817	2.572
3	MD	1	3	6	51	-0.196	2.011	-4.138	3.745
3	PA	1	1	22	148	1.257	2.811	-4.253	6.767
3	PA	1	3	22	139	1.475	4.044	-6.450	9.401
3	PA	2	2	4	70	-1.758	2.821	-7.288	3.772
3	PA	2	3	4	75	-1.739	3.155	-7.923	4.445
3	PA	3	1	6	36	-0.100	4.212	-8.355	8.155
3	PA	3	4	4	60	-2.454	5.543	-13.319	8.410
3	VA	1	1	7	48	0.128	2.256	-4.294	4.550
3	VA	1	2	8	60	0.840	2.709	-4.470	6.149
3	VA	3	1	4	24	-0.382	1.164	-2.664	1.899
3	VA	3	3	4	25	-2.567	0.945	-4.418	-0.715
3	VA	3	4	4	24	-3.313	2.668	-8.541	1.916
3	WV	1	1	2	10	0.868	3.738	-6.457	8.194
3	WV	1	2	2	12	1.654	5.738	-9.593	12.901
3	WV	1	3	2	8	-1.318	3.691	-8.552	5.917
3	WV	1	4	2	11	3.751	2.610	-1.365	8.867
3	WV	2	1	2	23	-3.727	4.665	-12.870	5.416
3	WV	2	2	2	25	-3.212	2.598	-8.305	1.880
3	WV	2	4	2	24	-9.825	7.684	-24.886	5.236
4	AL	12	1	5	25	0.855	3.718	-6.434	8.143
4	AL	12	2	5	28	0.992	7.360	-13.434	15.418
4	AL	12	3	5	30	0.815	2.639	-4.357	5.987
4	AL	12	4	5	30	-1.556	4.169	-9.727	6.616
4	FL	11	1	4	74	1.038	1.204	-1.322	3.398
4	FL	11	2	4	73	0.894	1.118	-1.298	3.086
4	FL	12	1	5	34	2.549	5.645	-8.516	13.614
4	FL	12	4	5	38	2.086	6.545	-10.741	14.914
4	FL	13	1	3	20	-1.390	2.588	-6.463	3.683
4	FL	13	3	3	21	-3.220	1.953	-7.048	0.608
4	FL	17	1	5	40	-0.790	2.127	-4.958	3.379
4	FL	18	2	3	31	-0.482	6.205	-12.644	11.680
4	FL	18	3	3	29	-2.673	2.191	-6.967	1.622
4	FL	20	1	2	23	0.517	3.492	-6.327	7.361
4	FL	20	2	2	25	-1.510	1.946	-5.324	2.304
4	KY	2	1	3	16	-2.710	2.335	-7.286	1.866
4	KY	2	2	3	18	-2.433	3.406	-9.110	4.243
4	KY	2	3	3	15	-3.140	2.285	-7.619	1.338
4	KY	2	4	3	16	-2.939	5.440	-13.601	7.724
4	NC	1	3	3	26	-2.022	1.282	-4.536	0.491
4	NC	1	4	6	46	-1.750	1.351	-4.399	0.899
4	NC	2	2	2	26	-1.154	3.102	-7.234	4.926
4	NC	2	3	2	25	-4.800	3.335	-11.337	1.737
4	NC	3	1	5	31	-2.216	2.398	-6.916	2.484

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	NC	3	2	4	26	-1.733	3.226	-8.056	4.590
4	NC	3	3	4	24	-2.632	5.065	-12.561	7.296
4	NC	3	4	5	32	-3.611	3.431	-10.336	3.114
4	SC	1	1	2	12	-0.160	4.827	-9.621	9.302
4	SC	1	2	2	12	-5.054	8.301	-21.323	11.216
4	TN	2	1	5	35	1.532	2.151	-2.685	5.748
4	TN	2	2	4	44	1.127	2.410	-3.598	5.851
4	TN	2	3	2	15	0.299	2.325	-4.258	4.857
4	TN	2	4	5	41	0.018	1.485	-2.893	2.929
4	TN	3	1	3	18	-0.946	1.663	-4.206	2.315
5	IL	1	4	13	142	1.226	3.991	-6.597	9.048
5	IL	3	1	4	39	-0.593	3.059	-6.589	5.402
5	IL	3	2	4	31	-3.553	1.886	-7.250	0.143
5	IL	3	3	4	42	-4.227	2.988	-10.083	1.630
5	IN	1	1	4	22	-0.481	3.146	-6.647	5.685
5	IN	1	3	4	21	-2.708	2.165	-6.952	1.536
5	IN	1	4	4	25	0.501	2.635	-4.664	5.665
5	IN	8	2	3	21	-3.917	1.332	-6.527	-1.307
5	IN	8	4	2	14	-1.784	1.190	-4.116	0.548
5	IN	100	1	2	12	-0.689	1.603	-3.830	2.452
5	IN	100	2	2	13	-4.661	1.321	-7.251	-2.072
5	IN	100	3	2	12	-4.148	3.758	-11.513	3.217
5	IN	100	4	2	13	0.651	3.746	-6.691	7.993
5	MI	1	3	4	46	0.421	2.671	-4.815	5.657
5	MI	1	4	4	47	-0.122	3.167	-6.330	6.085
5	MI	2	1	4	24	-0.805	4.472	-9.570	7.960
5	MI	2	2	4	19	-1.794	4.629	-10.867	7.278
5	MI	2	3	5	28	0.436	6.180	-11.677	12.550
5	MI	2	4	6	39	1.692	4.518	-7.163	10.547
5	OH	1	1	3	18	-1.000	13.801	-28.050	26.050
5	OH	1	2	2	14	-2.509	6.437	-15.126	10.109
5	OH	1	3	3	17	1.471	4.374	-7.103	10.044
5	OH	1	4	3	18	-0.692	7.289	-14.978	13.593
5	OH	6	1	2	13	-0.171	4.201	-8.404	8.062
5	OH	6	2	2	13	-0.586	2.402	-5.293	4.121
5	OH	6	3	2	14	-1.250	4.043	-9.175	6.674
5	OH	6	4	2	12	0.443	2.200	-3.869	4.755
5	OH	8	1	2	25	-1.981	2.215	-6.322	2.360
5	OH	8	2	2	26	-3.431	1.477	-6.326	-0.537
5	OH	9	2	2	15	1.014	3.464	-5.776	7.803
5	OH	9	3	2	12	-2.575	2.952	-8.361	3.212
5	OH	9	4	2	13	-2.161	2.488	-7.037	2.715
5	OH	10	1	2	14	0.818	2.356	-3.801	5.437
5	OH	10	2	2	11	-1.119	1.268	-3.605	1.367
5	OH	10	3	2	14	-1.582	1.530	-4.580	1.416
5	OH	10	4	2	11	-1.195	1.938	-4.994	2.604
5	WI	1	1	7	47	1.774	4.351	-6.755	10.302
5	WI	1	2	7	43	-0.079	3.389	-6.722	6.564
5	WI	1	3	7	46	1.276	4.609	-7.758	10.310
5	WI	1	4	7	43	5.226	3.424	-1.485	11.937
6	LA	1	1	3	20	1.919	4.952	-7.786	11.625
6	LA	1	2	4	26	0.406	2.303	-4.108	4.919
6	NM	1	1	3	20	-1.144	2.866	-6.762	4.473
6	NM	1	3	4	27	-1.563	2.167	-5.810	2.685
6	OK	102	2	2	12	5.583	4.052	-2.358	13.525
6	OK	102	3	2	14	4.060	0.940	2.219	5.902
6	OK	102	4	2	20	2.075	2.804	-3.420	7.570
6	OK	103	2	2	12	-1.504	2.327	-6.064	3.056
6	OK	103	3	2	12	-2.202	2.423	-6.951	2.547
6	OK	103	4	2	12	-1.334	2.949	-7.114	4.446
6	TX	2	1	3	23	0.295	2.540	-4.683	5.274

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	TX	2	2	3	24	-1.226	3.056	-7.216	4.765
6	TX	2	3	2	15	0.253	3.486	-6.580	7.086
6	TX	2	4	3	25	0.289	3.564	-6.696	7.274
6	TX	3	1	2	9	0.740	1.318	-1.844	3.323
6	TX	3	2	2	12	0.155	2.589	-4.919	5.229
6	TX	3	3	2	14	-1.274	2.778	-6.719	4.171
6	TX	3	4	2	12	1.204	2.032	-2.779	5.187
6	TX	6	2	3	17	-1.787	2.457	-6.604	3.029
6	TX	6	3	3	20	-1.549	3.353	-8.121	5.023
7	IA	1	2	3	23	-0.145	3.918	-7.825	7.535
7	IA	1	4	3	24	-3.865	4.785	-13.242	5.513
7	KC	1	1	4	25	-1.068	7.516	-15.799	13.664
7	KC	1	2	4	25	1.267	4.973	-8.480	11.014
7	KC	1	3	5	31	0.743	5.234	-9.515	11.001
7	MO	2	1	5	30	1.014	3.474	-5.795	7.824
7	MO	2	3	5	30	-1.221	3.047	-7.193	4.751
7	MO	3	1	2	15	6.917	11.451	-15.526	29.361
7	MO	3	2	2	18	2.351	8.453	-14.217	18.919
7	MO	3	4	2	18	3.982	12.704	-20.918	28.881
7	MO	4	1	3	21	2.641	3.156	-3.545	8.827
7	MO	4	3	3	21	-1.384	2.491	-6.266	3.499
7	MO	4	4	3	18	-0.919	3.144	-7.082	5.244
7	NB	2	1	2	13	1.167	0.838	-0.475	2.809
7	NB	3	3	2	12	-1.434	1.088	-3.566	0.697
8	CO	1	1	12	72	-0.326	3.814	-7.802	7.149
8	CO	1	3	11	61	-2.375	4.088	-10.388	5.639
8	MT	4	1	2	37	-2.170	2.191	-6.464	2.124
8	MT	4	2	2	19	0.375	4.436	-8.319	9.069
8	MT	4	4	2	31	1.411	5.541	-9.449	12.272
9	AZ	13	3	8	36	-0.917	0.768	-2.422	0.589
9	CA	1	1	15	84	4.121	2.715	-1.201	9.444
9	CA	1	3	21	143	3.214	2.994	-2.654	9.082
9	CA	4	4	16	97	0.154	2.332	-4.415	4.724
9	CA	36	1	7	51	-3.989	3.862	-11.559	3.580
9	CA	36	2	7	42	-0.821	4.081	-8.820	7.177
9	CA	36	3	8	45	0.777	3.941	-6.948	8.503
9	NV	200	1	4	36	6.707	4.279	-1.681	15.094
9	NV	200	2	5	59	3.308	2.463	-1.518	8.135
9	NV	200	4	6	71	5.189	5.760	-6.100	16.479
10	AK	1	1	8	104	-0.490	1.631	-3.687	2.707
10	ID	1	1	2	21	1.569	2.927	-4.168	7.307
10	ID	1	2	2	16	2.163	3.520	-4.737	9.063
10	ID	1	3	2	8	0.612	4.036	-7.299	8.524
10	ID	1	4	2	15	0.258	2.250	-4.152	4.668
10	OR	1	2	7	87	0.139	2.146	-4.067	4.344

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	1	3	15	-0.352	2.505	-5.262	4.559
1	CT	1	3	3	11	9.052	6.351	-3.396	21.501
1	CT	1	4	3	20	2.634	4.888	-6.946	12.214
1	MA	1	1	5	21	-4.076	5.579	-15.011	6.859
1	MA	1	2	4	21	-2.191	8.383	-18.621	14.240
1	MA	1	3	7	32	-2.964	6.056	-14.834	8.905
1	MA	1	4	6	32	1.705	6.458	-10.951	14.362
1	VT	1	3	2	12	-0.468	2.956	-6.261	5.326
1	VT	1	4	2	11	-4.723	5.161	-14.838	5.392

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

--- POLLUTANT = NO2 ---

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	NJ	1	1	8	52	3.280	5.491	-7.483	14.044
2	NJ	1	3	5	29	-7.322	10.146	-27.208	12.564
2	NJ	1	4	8	44	-3.303	4.800	-12.710	6.104
2	NY	1	2	6	41	2.971	3.060	-3.027	8.969
2	NY	1	3	6	39	1.600	5.682	-9.537	12.737
2	NY	1	4	5	32	-0.209	3.244	-6.568	6.149
3	DC	1	1	2	12	-4.900	2.602	-9.999	0.200
3	DC	1	3	2	9	-1.253	3.673	-8.451	5.945
3	DC	1	4	2	8	1.457	5.455	-9.235	12.148
3	DE	1	2	2	16	0.984	3.524	-5.922	7.891
3	MD	1	2	2	10	1.758	2.963	-4.050	7.566
3	MD	1	3	3	22	1.205	4.347	-7.315	9.726
3	MD	1	4	2	17	-0.364	2.708	-5.671	4.942
3	PA	1	2	19	106	-1.896	5.840	-13.342	9.551
3	PA	1	3	19	117	-3.660	4.081	-11.658	4.339
3	PA	1	4	19	115	-1.278	5.578	-12.210	9.654
3	PA	2	1	3	36	-3.197	6.304	-15.553	9.159
3	PA	2	2	3	34	-0.345	5.048	-10.238	9.549
3	PA	2	3	3	36	0.403	6.866	-13.055	13.861
3	PA	2	4	3	40	-3.002	7.038	-16.797	10.793
3	PA	3	1	3	18	-1.326	4.290	-9.735	7.082
3	PA	3	2	3	18	0.146	3.729	-7.164	7.456
3	PA	3	4	3	21	-0.229	4.841	-9.716	9.259
3	VA	1	2	5	42	1.351	5.298	-9.033	11.734
3	VA	3	2	4	24	-1.249	3.638	-8.379	5.882
3	VA	3	3	4	25	-3.433	4.697	-12.639	5.773
3	VA	3	4	4	20	-0.798	2.688	-6.066	4.470
3	WV	1	1	3	14	-0.084	7.672	-15.122	14.954
3	WV	1	2	3	17	-1.084	8.320	-17.390	15.223
3	WV	1	3	3	13	-1.849	10.048	-21.543	17.846
3	WV	1	4	3	16	3.090	9.052	-14.651	20.832
3	WV	2	1	2	19	3.710	4.056	-4.240	11.660
3	WV	2	2	2	21	1.479	3.402	-5.189	8.148
3	WV	2	3	2	23	0.915	3.374	-5.697	7.528
3	WV	2	4	2	20	3.320	4.584	-5.665	12.305
4	FL	12	3	2	13	0.736	3.886	-6.882	8.353
4	FL	12	4	2	14	0.992	4.854	-8.523	10.506
4	FL	13	4	2	11	0.002	3.149	-6.170	6.173
4	FL	18	1	2	13	6.318	7.500	-8.383	21.019
4	FL	18	2	2	15	3.466	2.348	-1.136	8.067
4	FL	18	3	2	16	3.648	4.133	-4.453	11.748
4	FL	18	4	2	19	2.871	3.591	-4.167	9.909
4	GA	10	1	2	21	2.467	4.640	-6.627	11.562
4	GA	10	3	2	12	-1.859	4.673	-11.018	7.300
4	KY	1	1	7	36	-1.057	6.568	-13.931	11.817
4	KY	1	2	7	40	0.048	9.098	-17.784	17.880
4	KY	1	3	7	38	1.280	6.328	-11.123	13.683
4	KY	1	4	7	42	0.911	6.504	-11.836	13.659
4	NC	2	2	2	23	4.968	6.924	-8.604	18.539
5	IL	1	2	7	71	-1.679	5.898	-13.239	9.882
5	IL	3	1	5	35	-0.939	3.494	-7.788	5.910
5	IL	3	3	5	47	-1.158	4.135	-9.262	6.946
5	IL	3	4	5	38	-1.948	3.930	-9.651	5.756
5	IN	1	1	2	11	-3.751	3.294	-10.207	2.705
5	IN	1	3	2	13	-2.716	3.555	-9.683	4.251
5	IN	1	4	2	9	1.272	5.946	-10.382	12.925
5	MI	2	3	2	10	1.692	2.661	-3.524	6.907
5	OH	8	3	2	19	3.862	7.170	-10.190	17.915
5	OH	9	1	2	13	-2.317	4.551	-11.237	6.604
5	OH	9	2	2	20	0.765	6.397	-11.773	13.303
5	OH	9	3	2	13	0.810	5.004	-8.997	10.617

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

-- POLLUTANT = NO2 --

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	9	4	2	21	-3.853	3.058	-9.847	2.141
5	WI	1	2	2	16	-5.399	4.762	-14.731	3.934
5	WI	1	3	2	8	-1.843	2.379	-6.505	2.819
5	WI	1	4	2	12	-2.842	3.450	-9.603	3.920
6	LA	1	1	5	33	0.044	3.762	-7.329	7.418
6	LA	1	2	5	31	-4.761	4.048	-12.694	3.173
6	LA	1	3	4	27	-0.890	4.625	-9.955	8.175
6	NM	1	2	2	14	0.021	4.941	-9.663	9.706
6	NM	1	4	2	8	4.397	6.779	-8.890	17.684
6	OK	101	1	2	10	-1.500	1.973	-5.368	2.368
6	OK	101	2	2	14	-0.221	2.731	-5.573	5.131
6	OK	101	3	3	18	-1.348	1.296	-3.888	1.192
6	OK	101	4	3	20	0.849	1.358	-1.812	3.510
6	OK	103	2	2	12	-3.761	8.081	-19.601	12.078
6	OK	103	3	2	11	-0.540	5.326	-10.978	9.899
6	OK	103	4	2	9	-1.399	8.976	-18.992	16.194
6	TX	2	1	2	17	-1.505	4.613	-10.547	7.537
6	TX	2	2	2	21	0.999	7.620	-13.936	15.935
6	TX	2	3	2	14	4.920	6.165	-7.163	17.003
6	TX	2	4	2	17	-1.527	5.674	-12.648	9.594
6	TX	6	2	3	17	-1.019	1.229	-3.428	1.389
6	TX	6	4	3	18	-0.056	0.912	-1.843	1.732
7	MO	1	2	2	11	0.276	1.907	-3.461	4.013
7	MO	1	3	2	9	-0.351	2.856	-5.948	5.247
7	MO	1	4	2	12	0.069	2.762	-5.345	5.482
7	MO	2	2	5	32	2.871	4.186	-5.333	11.074
7	MO	2	3	5	29	2.565	4.063	-5.397	10.528
7	MO	3	1	2	15	0.517	7.565	-14.311	15.346
7	MO	3	2	2	13	-0.547	4.631	-9.623	8.530
7	MO	3	3	2	14	1.231	6.492	-11.493	13.955
7	MO	3	4	2	14	-2.216	6.692	-15.333	10.901
7	MO	4	1	2	14	2.199	4.064	-5.766	10.165
7	MO	4	2	2	13	-0.786	3.343	-7.339	5.767
7	MO	4	3	2	14	-2.022	6.518	-14.798	10.754
7	MO	4	4	2	12	-0.796	2.928	-6.535	4.943
8	ND	1	1	3	10	0.119	4.773	-9.237	9.475
8	ND	1	2	3	12	-1.343	2.058	-5.378	2.691
8	ND	1	3	3	14	-0.937	2.182	-5.214	3.341
8	ND	1	4	3	14	-1.271	1.682	-4.568	2.026
8	UT	1	1	3	36	-0.977	1.789	-4.484	2.529
8	UT	1	4	3	33	3.708	3.577	-3.303	10.719
9	CA	4	3	13	89	0.680	3.485	-6.151	7.510
9	CA	4	4	13	79	0.222	4.137	-7.887	8.330
9	CA	36	1	7	46	-0.738	5.602	-11.717	10.242
9	CA	36	2	7	40	1.098	3.891	-6.529	8.725
9	CA	36	3	7	39	-0.454	4.683	-9.633	8.725
9	CA	61	2	20	110	-4.398	6.466	-17.072	8.277
9	CA	61	3	22	137	-0.567	6.692	-13.683	12.549

-- POLLUTANT = O3 --

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	2	10	117	-0.393	2.777	-5.836	5.050
1	MA	1	1	3	15	-0.795	4.456	-9.527	7.938
1	MA	1	2	14	104	-1.004	5.107	-11.014	9.007
1	MA	1	4	3	20	-0.965	5.404	-11.557	9.626
1	ME	1	2	7	63	1.492	3.044	-4.476	7.459
1	ME	1	3	4	50	1.188	2.471	-3.654	6.031

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	NH	1	1	2	5	-4.807	2.904	-10.498	0.885
1	NH	1	3	5	131	1.230	4.528	-7.645	10.105
1	RI	1	2	2	27	-3.135	1.942	-6.942	0.671
1	VT	1	2	2	17	-0.225	2.642	-5.404	4.953
1	VT	1	3	2	14	0.071	2.198	-4.237	4.378
1	VT	1	4	2	5	-1.128	2.743	-6.504	4.248
2	NJ	1	1	11	77	0.607	5.175	-9.535	10.749
2	NJ	1	2	13	97	-1.975	5.866	-13.472	9.522
2	NJ	1	3	6	28	-5.096	3.401	-11.763	1.570
2	NJ	1	4	14	91	-1.235	5.789	-12.582	10.112
3	DC	1	1	2	11	1.826	2.670	-3.407	7.060
3	DC	1	2	2	14	0.922	2.966	-4.890	6.735
3	DC	1	3	2	13	0.874	1.325	-1.723	3.471
3	DC	1	4	2	9	-1.262	3.344	-7.816	5.293
3	MD	1	1	14	116	-0.607	3.290	-7.056	5.841
3	MD	1	2	10	76	0.510	2.403	-4.200	5.220
3	MD	1	3	10	81	0.197	1.910	-3.547	3.941
3	MD	1	4	9	55	-0.411	2.519	-5.348	4.526
3	MD	5	4	4	45	-0.435	2.649	-5.627	4.757
3	PA	1	1	28	185	-1.049	3.644	-8.191	6.093
3	PA	1	2	28	168	0.393	3.387	-6.247	7.032
3	PA	2	2	4	47	0.411	2.776	-5.030	5.853
3	PA	2	3	4	52	0.577	3.251	-5.794	6.948
3	PA	2	4	4	23	-3.248	2.094	-7.352	0.857
3	PA	3	2	3	16	1.383	5.319	-9.043	11.809
3	PA	3	4	2	8	3.882	4.852	-5.627	13.392
3	VA	1	1	3	21	-0.633	4.771	-9.983	8.718
3	VA	1	2	11	100	-1.326	3.680	-8.539	5.888
3	VA	1	3	11	106	-1.203	2.339	-5.788	3.381
3	VA	3	1	3	7	3.158	9.947	-16.338	22.654
3	VA	3	2	4	24	0.154	1.939	-3.646	3.954
3	VA	3	3	4	24	-1.288	2.232	-5.663	3.086
3	VA	3	4	4	24	-2.650	3.559	-9.625	4.325
3	VA	815	2	2	22	-2.267	3.136	-8.414	3.880
3	VA	815	3	3	31	-1.567	2.326	-6.126	2.992
3	VA	815	4	3	21	-2.923	2.756	-8.325	2.478
3	WV	1	1	4	20	-0.571	6.556	-13.420	12.277
3	WV	1	2	3	19	-1.154	6.294	-13.490	11.182
3	WV	1	3	3	31	1.301	3.683	-5.918	8.520
3	WV	2	1	2	21	1.134	5.217	-9.092	11.360
3	WV	2	2	2	23	1.135	4.065	-6.832	9.102
3	WV	2	4	2	19	2.306	2.869	-3.318	7.930
4	AL	11	2	3	21	1.041	3.782	-6.371	8.453
4	AL	11	3	2	10	-0.064	2.282	-4.538	4.409
4	AL	11	4	2	6	-3.528	4.864	-13.062	6.005
4	AL	12	2	4	25	-5.872	5.861	-17.358	5.615
4	AL	12	3	5	29	-1.648	2.910	-7.350	4.055
4	AL	13	3	2	9	-1.050	23.866	-47.827	45.728
4	AL	13	4	2	7	-12.000	7.781	-27.252	3.252
4	AL	14	2	2	9	0.488	3.670	-6.705	7.681
4	FL	1	1	3	25	-0.078	1.989	-3.977	3.820
4	FL	11	1	2	30	-6.614	7.891	-22.079	8.852
4	FL	11	4	2	30	-4.464	5.558	-15.358	6.431
4	FL	12	1	3	19	1.582	3.942	-6.143	9.308
4	FL	12	3	3	19	4.346	4.348	-4.177	12.868
4	FL	13	1	3	24	-0.833	1.678	-4.121	2.455
4	FL	13	4	3	26	-0.140	2.675	-5.383	5.103
4	FL	15	1	2	16	-2.774	2.988	-8.631	3.083
4	FL	16	2	2	18	-5.392	5.418	-16.012	5.228
4	FL	16	3	2	21	-5.560	2.757	-10.965	-0.156
4	FL	16	4	2	25	-3.426	3.920	-11.109	4.257

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

--- POLLUTANT = O3 ---

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	FL	17	1	3	18	-1.667	1.453	-4.514	1.181
4	FL	17	2	3	24	-0.958	3.100	-7.035	5.119
4	FL	17	3	3	20	-1.700	1.090	-3.836	0.436
4	FL	18	1	3	26	-4.606	2.743	-9.982	0.770
4	FL	18	2	3	29	-2.581	3.070	-8.598	3.435
4	FL	18	4	3	30	-0.515	2.982	-6.358	5.329
4	FL	20	3	2	18	-0.177	1.037	-2.210	1.856
4	GA	10	1	4	16	-0.138	3.612	-7.218	6.941
4	GA	10	2	6	77	0.196	3.235	-6.145	6.537
4	KY	1	3	16	101	-0.533	5.901	-12.099	11.032
4	KY	2	3	2	8	0.218	6.156	-11.847	12.283
4	KY	2	4	2	7	-4.487	6.173	-16.587	7.612
4	MS	100	4	4	28	0.436	4.701	-8.778	9.651
4	NC	1	2	9	64	-0.295	2.427	-5.053	4.463
4	NC	1	3	11	76	-0.313	2.659	-5.524	4.899
4	NC	1	4	7	20	-0.571	1.814	-4.126	2.985
4	NC	2	2	3	38	-1.050	2.561	-6.070	3.970
4	NC	2	3	3	38	-0.451	1.776	-3.933	3.030
4	NC	2	4	3	13	-0.839	2.972	-6.663	4.986
4	NC	3	1	3	21	-0.763	3.055	-6.751	5.224
4	NC	3	2	3	21	2.764	4.403	-5.865	11.393
4	NC	3	3	3	24	3.555	4.251	-4.778	11.887
4	NC	3	4	3	10	1.859	2.498	-3.037	6.755
4	SC	1	3	9	66	-0.876	6.265	-13.155	11.402
4	TN	1	2	2	25	0.494	2.383	-4.176	5.164
4	TN	2	2	2	18	-0.188	2.530	-5.146	4.770
4	TN	2	3	2	14	-0.839	0.931	-2.663	0.986
4	TN	2	4	2	5	0.218	0.678	-1.112	1.547
4	TN	3	1	2	5	-0.001	2.224	-4.361	4.358
4	TN	3	2	2	9	1.725	2.466	-3.109	6.559
4	TN	3	4	2	12	-0.086	1.268	-2.572	2.400
4	TN	4	2	2	12	-1.701	7.117	-15.650	12.249
4	TN	4	3	2	14	-1.546	4.570	-10.504	7.412
4	TN	5	2	2	11	0.441	1.070	-1.657	2.538
4	TN	5	3	2	11	1.159	3.472	-5.646	7.964
4	TN	5	4	2	7	-0.875	6.956	-14.508	12.759
5	IL	3	1	2	16	-1.744	3.674	-8.944	5.457
5	IL	3	3	9	90	-0.030	4.132	-8.128	8.068
5	IL	3	4	9	45	-1.767	4.310	-10.215	6.681
5	IN	2	2	2	12	1.088	5.082	-8.873	11.049
5	IN	2	3	2	14	-0.712	1.354	-3.365	1.941
5	IN	8	2	6	41	0.099	3.413	-6.592	6.789
5	IN	8	3	6	40	0.076	3.203	-6.203	6.355
5	IN	100	2	3	17	-1.144	4.179	-9.336	7.047
5	IN	100	3	3	18	-2.583	3.645	-9.727	4.561
5	MI	1	2	13	138	-1.742	3.327	-8.263	4.779
5	MI	2	2	4	25	-2.037	2.390	-6.721	2.647
5	MN	1	2	4	38	-1.028	2.655	-6.233	4.176
5	OH	1	2	3	11	-0.909	7.343	-15.301	13.483
5	OH	2	2	3	16	0.804	6.025	-11.004	12.613
5	OH	2	3	2	12	-0.153	5.727	-11.377	11.072
5	OH	6	2	2	13	1.167	5.188	-9.002	11.336
5	OH	6	3	2	14	1.838	1.541	-1.182	4.858
5	OH	6	4	2	5	-0.408	1.577	-3.499	2.683
5	OH	7	2	2	15	-0.858	1.338	-3.481	1.765
5	OH	8	2	4	31	1.763	8.487	-14.871	18.397
5	OH	8	3	6	52	-1.157	7.867	-16.577	14.262
5	OH	8	4	3	10	-3.053	8.191	-19.108	13.002
5	OH	9	3	3	17	0.456	2.159	-3.775	4.687
5	OH	9	4	2	9	-1.025	3.073	-7.048	4.998
5	OH	10	3	4	26	-1.290	2.818	-6.813	4.233

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	12	2	2	10	-5.673	8.595	-22.519	11.173
5	OH	12	3	2	16	-0.340	6.193	-12.478	11.799
5	OH	15	2	2	20	-2.100	2.201	-6.414	2.214
5	OH	15	3	2	21	0.571	3.905	-7.083	8.226
5	WI	1	2	22	138	-0.271	3.654	-7.433	6.891
6	AR	1	1	2	12	2.169	4.074	-5.816	10.154
6	AR	1	3	2	10	-1.715	5.468	-12.432	9.001
6	AR	1	4	2	7	0.922	3.473	-5.885	7.729
6	LA	1	3	13	85	-2.012	2.996	-7.885	3.861
6	NM	1	1	3	15	1.156	5.211	-9.058	11.371
6	NM	1	4	4	24	-1.714	3.830	-9.221	5.792
6	NM	2	4	3	10	4.362	4.376	-4.215	12.939
6	OK	101	1	2	13	0.056	1.537	-2.956	3.069
6	OK	101	3	3	18	-0.533	1.461	-3.396	2.330
6	OK	101	4	3	20	-0.974	0.916	-2.770	0.821
6	OK	103	2	3	18	-0.998	3.898	-8.638	6.642
6	OK	103	3	3	17	1.336	3.504	-5.532	8.204
6	OK	103	4	3	18	1.058	2.382	-3.612	5.727
6	TX	2	1	4	34	-0.235	3.643	-7.376	6.905
6	TX	2	3	3	37	-2.542	4.113	-10.603	5.520
6	TX	2	4	3	27	1.931	4.806	-7.488	11.350
6	TX	6	2	6	39	-4.617	3.554	-11.582	2.348
6	TX	6	3	6	36	-6.064	2.618	-11.196	-0.932
6	TX	6	4	6	39	-6.454	2.811	-11.963	-0.945
7	IA	1	2	2	12	-1.790	2.948	-7.567	3.987
7	IA	1	4	2	9	0.312	2.118	-3.840	4.463
7	IA	2	1	2	12	0.591	2.605	-4.515	5.698
7	IA	2	2	2	12	1.096	1.921	-2.670	4.862
7	IA	2	3	2	12	1.442	3.076	-4.586	7.471
7	IA	2	4	2	11	0.710	1.714	-2.650	4.070
7	IA	3	1	2	13	-1.328	1.260	-3.797	1.141
7	IA	3	4	2	10	-1.658	2.247	-6.063	2.746
7	KC	1	2	3	18	-6.162	6.204	-18.323	5.998
7	KC	1	3	4	23	-4.414	3.786	-11.835	3.007
7	KC	1	4	3	20	-2.710	6.079	-14.624	9.204
7	MO	1	1	4	24	-0.386	1.458	-3.244	2.471
7	MO	1	2	5	30	0.441	1.142	-1.798	2.680
7	MO	1	3	5	32	-0.202	1.464	-3.072	2.667
7	MO	1	4	4	23	0.316	1.089	-1.819	2.451
7	MO	3	2	4	29	-0.578	4.997	-10.372	9.217
7	MO	3	3	4	30	-1.918	1.616	-5.086	1.250
7	MO	3	4	4	12	-1.210	2.552	-6.212	3.791
7	MO	4	1	2	14	-1.949	3.501	-8.811	4.912
7	MO	4	2	2	12	1.817	3.265	-4.581	8.216
7	MO	4	3	3	15	1.224	4.015	-6.645	9.092
7	MO	4	4	3	18	-0.115	3.120	-6.229	6.000
7	MO	5	1	2	11	-1.892	0.805	-3.469	-0.314
7	MO	5	2	2	12	-1.759	2.096	-5.867	2.348
7	MO	5	3	2	13	-3.223	2.766	-8.645	2.199
7	MO	5	4	2	12	-1.783	1.317	-4.365	0.799
7	NB	3	1	3	18	0.951	1.914	-2.801	4.703
7	NB	3	2	3	18	1.043	1.890	-2.661	4.747
7	NB	3	3	3	17	0.609	1.210	-1.762	2.980
7	NB	3	4	3	15	0.283	2.121	-3.875	4.441
8	CO	1	1	10	50	2.147	4.169	-6.024	10.317
8	CO	1	2	9	49	1.936	3.902	-5.711	9.583
8	CO	1	3	9	48	0.568	5.908	-11.011	12.147
8	ND	1	2	3	19	0.197	5.476	-10.535	10.930
8	ND	1	3	3	17	0.368	3.889	-7.256	7.991
8	UT	1	3	5	56	0.736	2.794	-4.740	6.213
8	AZ	13	2	7	34	-3.176	2.002	-7.099	0.748

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
9	AZ	200	1	7	34	-2.593	2.149	-6.805	1.619
9	CA	4	4	22	120	-2.117	3.419	-8.818	4.585
9	CA	36	3	8	47	-0.143	1.959	-3.983	3.698
9	NV	300	2	2	7	-0.276	4.348	-8.799	8.246
10	WA	1	2	5	46	2.304	3.135	-3.840	8.449
10	WA	1	3	5	54	1.426	2.849	-4.158	7.010
10	WA	1	4	4	14	-1.571	2.234	-5.950	2.808

POLLUTANT = PB

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	NY	1	1	2	11	3.524	11.988	-19.972	27.019
2	NY	1	2	2	11	2.763	6.109	-9.210	14.736
3	PA	1	1	2	24	1.390	8.027	-14.342	17.122
3	PA	1	2	2	17	4.444	7.226	-9.719	18.607
3	PA	1	3	2	23	-3.897	9.065	-21.663	13.870
3	PA	1	4	2	18	9.879	11.371	-12.409	32.167
4	AL	12	1	2	27	-3.801	14.794	-32.798	25.195
4	AL	12	2	2	27	-6.700	13.750	-33.649	20.249
4	AL	12	3	2	18	-9.821	12.956	-35.214	15.572
4	AL	12	4	2	19	6.312	18.576	-30.098	42.722
4	FL	13	1	2	30	0.436	6.765	-12.823	13.694
4	TN	3	2	2	13	-1.036	5.427	-11.672	9.601
6	NM	1	2	2	8	-1.675	6.959	-15.316	11.965
6	TX	1	4	2	16	1.209	7.763	-14.007	16.425
9	AZ	13	1	2	13	-0.339	3.256	-6.720	6.042
9	CA	61	1	2	7	-0.390	5.714	-11.589	10.809

POLLUTANT = PM10

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	2	2	7	-2.707	1.556	-5.756	0.343
1	CT	1	3	2	21	1.291	5.828	-10.131	12.713
1	CT	1	4	2	14	-5.218	2.427	-9.974	-0.461
1	ME	1	4	4	21	-4.950	4.520	-13.810	3.910
1	ME	108	2	2	6	-1.094	2.623	-6.235	4.047
2	NJ	1	4	3	19	5.951	4.145	-2.172	14.074
3	PA	1	1	5	59	-0.971	7.402	-15.479	13.538
3	PA	1	2	5	50	-1.496	6.684	-14.596	11.604
3	PA	1	3	5	65	-0.558	6.571	-13.438	12.322
3	PA	1	4	5	58	3.168	9.040	-14.550	20.886
3	PA	2	1	2	19	-2.468	10.121	-22.306	17.369
3	PA	2	2	3	37	1.216	8.926	-16.278	18.711
3	PA	2	3	3	41	-1.661	7.268	-15.907	12.585
3	VA	1	1	2	13	0.448	3.071	-5.571	6.466
3	VA	1	3	2	23	1.903	3.576	-5.106	8.912
3	VA	1	4	2	13	-0.528	4.146	-8.655	7.599
4	AL	12	1	2	18	-4.134	7.509	-18.852	10.583
4	AL	12	3	2	22	1.002	5.339	-9.462	11.466
4	AL	12	4	2	19	-2.765	8.806	-20.024	14.495
4	KY	2	2	2	19	-1.387	9.457	-19.923	17.148
4	KY	2	3	2	30	1.494	6.316	-10.886	13.874
4	KY	2	4	2	22	10.935	9.197	-7.090	28.961
4	MS	100	4	4	46	2.720	9.110	-15.135	20.574
4	NC	1	1	2	13	-0.085	7.621	-15.023	14.853

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = PM10

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	NC	1	2	2	27	4.117	9.859	-15.206	23.439
4	NC	2	2	2	30	-1.005	4.686	-10.190	8.179
4	NC	2	3	2	30	-0.833	6.353	-13.285	11.619
4	NC	2	4	2	28	0.311	6.971	-13.352	13.974
4	TN	1	2	3	30	5.085	11.762	-17.969	28.139
4	TN	3	3	2	31	-1.933	3.477	-8.748	4.882
4	TN	5	3	2	32	-0.922	2.222	-5.277	3.434
4	TN	5	4	2	24	-0.418	2.835	-5.975	5.139
5	IL	1	2	2	21	6.512	4.502	-2.311	15.336
5	IL	1	4	2	13	0.740	9.793	-18.455	19.935
5	IN	5	1	2	28	-0.371	5.243	-10.647	9.904
5	IN	5	2	2	27	-2.834	7.432	-17.402	11.733
5	IN	8	1	2	21	-0.472	5.258	-10.778	9.833
5	IN	8	2	2	23	3.902	7.876	-11.535	19.340
5	IN	8	3	2	26	1.127	5.499	-9.651	11.904
5	IN	8	4	2	23	5.505	7.218	-8.642	19.651
5	IN	100	4	2	15	3.407	4.746	-5.895	12.710
5	MI	1	1	2	9	0.497	4.767	-8.847	9.841
5	MI	1	2	2	8	-3.459	5.633	-14.501	7.582
5	MI	1	3	2	23	-1.278	9.082	-19.079	16.522
5	MI	1	4	2	9	-5.806	21.168	-47.295	35.683
6	NM	1	2	3	24	-0.119	12.110	-23.855	23.617
6	NM	1	3	2	14	-0.394	9.297	-18.617	17.828
6	NM	1	4	2	16	-3.261	12.242	-27.255	20.733
6	TX	1	4	2	11	-1.740	9.730	-20.810	17.330
7	IA	1	3	2	7	5.718	5.459	-4.981	16.417
7	IA	3	1	2	14	9.914	8.605	-6.952	26.779
7	IA	3	2	3	38	8.251	15.098	-21.341	37.842
7	IA	3	3	2	25	11.982	15.292	-17.990	41.954
7	IA	3	4	2	13	11.103	7.912	-4.406	26.611
7	NB	1	3	2	21	-1.657	15.992	-33.001	29.687
7	NB	1	4	2	18	0.912	5.169	-9.220	11.044
8	CO	1	4	3	35	1.372	8.264	-14.826	17.570
8	MT	1	1	2	46	-2.073	14.397	-30.292	26.146
8	MT	1	2	2	38	-0.613	6.818	-13.976	12.750
8	MT	1	3	2	43	-1.600	11.622	-24.379	21.179
8	MT	1	4	2	49	1.271	12.113	-22.470	25.012
8	UT	1	1	2	18	-1.108	5.338	-11.570	9.355
8	UT	1	2	2	21	2.379	10.118	-17.451	22.210
8	UT	1	3	2	29	1.201	9.898	-18.199	20.601
8	UT	1	4	2	24	-0.142	2.783	-5.597	5.314
9	CA	61	2	2	26	3.265	3.893	-4.365	10.895
9	CA	61	3	2	29	-5.200	6.905	-18.733	8.334
9	HI	120	3	2	19	-5.573	5.842	-17.023	5.876
10	AK	1	1	3	18	5.301	7.182	-8.776	19.379
10	AK	1	2	2	14	-1.874	8.747	-19.018	15.269
10	AK	1	3	2	15	-1.013	3.280	-7.443	5.417
10	AK	1	4	3	18	2.164	5.508	-8.632	12.959
10	ID	1	1	2	38	0.479	2.372	-4.170	5.128
10	ID	1	2	2	34	1.401	4.011	-6.460	9.263
10	ID	1	4	2	28	2.259	6.467	-10.416	14.935
10	WA	1	2	3	40	-0.793	9.686	-19.778	18.193
10	WA	1	4	3	41	-0.009	4.769	-9.357	9.340

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	3	17	148	-0.454	3.963	-8.222	7.314

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	4	17	134	0.328	3.823	-7.165	7.821
1	MA	1	1	11	81	-2.708	4.427	-11.386	5.970
1	ME	1	2	2	24	-4.296	2.104	-8.421	-0.172
1	ME	1	3	2	30	-4.472	4.996	-14.264	5.321
1	ME	1	4	2	28	-1.185	4.680	-10.357	7.987
1	ME	104	1	4	52	0.960	2.917	-4.757	6.678
1	ME	104	2	4	48	-0.453	2.251	-4.865	3.958
1	ME	104	3	4	52	-1.517	1.601	-4.654	1.621
1	ME	110	1	2	11	1.240	3.544	-5.707	8.187
1	ME	110	2	2	14	-2.859	2.820	-8.387	2.669
1	ME	110	3	2	14	-1.662	2.883	-7.312	3.988
1	ME	110	4	2	12	-0.560	1.616	-3.726	2.607
1	ME	113	1	3	29	0.514	2.330	-4.053	5.081
1	ME	113	2	3	27	-0.579	2.124	-4.742	3.584
1	NH	1	4	7	181	1.252	5.534	-9.595	12.100
1	RI	1	1	2	25	-3.104	4.988	-12.880	6.673
1	RI	1	2	2	24	-1.687	3.444	-8.438	5.063
1	RI	1	4	2	20	-1.979	4.890	-11.562	7.605
1	VT	1	1	3	27	-2.971	2.202	-7.287	1.346
1	VT	1	2	3	18	-1.988	1.793	-5.502	1.526
1	VT	1	3	2	13	-3.661	2.561	-8.680	1.359
1	VT	1	4	2	11	-3.610	1.606	-6.758	-0.462
2	NJ	1	1	16	106	-0.205	4.652	-9.323	8.912
2	NJ	1	2	15	93	0.234	5.297	-10.148	10.617
2	NJ	1	4	15	86	1.282	4.980	-8.479	11.043
2	NY	1	3	23	156	-0.591	2.657	-5.798	4.617
2	PR	2	1	2	22	-2.680	5.763	-13.975	8.615
2	PR	2	2	2	23	-4.815	4.716	-14.059	4.429
2	PR	2	3	2	27	-3.062	3.326	-9.580	3.457
3	DC	1	1	2	11	-4.026	1.528	-7.020	-1.031
3	DC	1	2	2	14	-3.862	4.403	-12.493	4.768
3	DC	1	3	2	15	0.235	4.182	-7.961	8.431
3	DC	1	4	2	10	-3.613	2.919	-9.335	2.109
3	MD	1	1	6	54	-0.008	1.696	-3.331	3.315
3	MD	1	2	3	30	-1.446	2.613	-6.569	3.676
3	MD	1	3	4	37	-0.330	1.688	-3.638	2.977
3	MD	1	4	4	41	0.098	3.366	-6.500	6.696
3	PA	1	1	32	209	0.180	4.781	-9.190	9.551
3	PA	1	2	32	184	-1.490	4.144	-9.613	6.633
3	PA	1	4	32	183	-1.092	3.978	-8.889	6.705
3	PA	2	4	10	203	0.322	3.531	-6.598	7.243
3	PA	3	1	7	39	-2.742	5.924	-14.353	8.869
3	PA	3	2	7	42	-0.590	5.676	-11.714	10.535
3	VA	1	1	6	39	-2.370	3.894	-10.001	5.262
3	VA	1	4	6	38	-1.912	3.029	-7.849	4.026
3	VA	3	1	4	22	-3.887	11.187	-25.814	18.040
3	VA	3	2	4	24	-3.884	3.382	-10.513	2.744
3	VA	3	3	4	25	-2.708	7.091	-16.607	11.190
3	VA	3	4	4	23	2.928	4.381	-5.659	11.515
3	VA	815	1	2	10	-0.209	1.716	-3.574	3.155
3	VA	815	4	2	17	-7.338	3.869	-14.922	0.245
3	WV	1	2	4	24	0.308	4.941	-9.377	9.993
3	WV	2	1	6	73	0.237	3.564	-6.748	7.222
3	WV	2	3	6	73	2.289	2.503	-2.617	7.195
4	FL	4	2	2	115	-11.728	3.411	-18.415	-5.042
4	FL	7	1	2	23	-5.204	6.385	-17.719	7.311
4	FL	11	2	4	67	-1.187	5.023	-11.033	8.658
4	FL	11	3	4	39	2.396	6.178	-9.714	14.506
4	FL	11	4	4	39	-1.956	6.615	-14.922	11.010
4	FL	12	1	5	21	1.899	3.102	-4.180	7.979
4	FL	12	3	5	34	2.486	5.269	-7.842	12.814

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	FL	13	1	4	51	-0.079	2.323	-4.632	4.475
4	FL	13	3	5	71	-1.320	2.880	-6.964	4.324
4	FL	15	1	2	13	-3.529	3.843	-11.062	4.004
4	GA	10	3	8	98	-4.668	3.014	-10.576	1.240
4	KY	1	1	9	59	-2.467	4.917	-12.105	7.171
4	KY	1	2	9	60	-3.569	4.692	-12.766	5.629
4	KY	1	3	9	61	-3.010	6.402	-15.557	9.537
4	KY	1	4	9	58	-0.116	3.454	-6.886	6.654
4	KY	2	1	2	13	-2.634	3.253	-9.010	3.743
4	KY	2	2	2	12	0.739	6.074	-11.165	12.644
4	KY	2	3	2	12	-1.861	6.662	-14.918	11.196
4	KY	2	4	2	14	0.236	3.582	-6.784	7.257
4	MS	100	1	2	21	-7.042	4.685	-16.224	2.140
4	MS	100	2	2	19	-7.652	4.239	-15.961	0.656
4	MS	100	3	2	16	-11.018	3.827	-18.519	-3.516
4	MS	100	4	2	20	-6.313	3.585	-13.339	0.713
4	NC	1	1	7	50	-0.745	3.234	-7.083	5.594
4	NC	2	3	2	25	-3.141	2.855	-8.737	2.456
4	SC	1	1	2	11	1.961	4.468	-6.796	10.719
4	SC	1	2	3	18	-0.731	7.192	-14.826	13.364
4	SC	1	3	3	18	-1.003	7.144	-15.006	13.000
5	IL	1	2	17	180	-0.098	5.080	-10.056	9.859
5	IL	1	4	19	183	2.117	4.817	-7.323	11.557
5	IL	3	1	7	76	-0.708	3.271	-7.120	5.704
5	IL	3	2	7	63	-0.048	3.080	-6.084	5.989
5	IL	3	3	7	71	-0.927	3.414	-7.618	5.764
5	IN	1	1	9	57	2.721	5.959	-8.960	14.402
5	IN	1	3	9	60	-1.740	4.739	-11.028	7.548
5	IN	1	4	9	52	-0.765	3.457	-7.541	6.011
5	IN	8	1	3	19	-1.796	3.595	-8.843	5.251
5	IN	8	2	3	20	0.534	3.345	-6.021	7.090
5	IN	8	3	3	19	0.259	2.379	-4.404	4.922
5	IN	8	4	3	19	-0.784	2.565	-5.812	4.244
5	IN	10	1	2	10	-0.756	3.258	-7.142	5.631
5	IN	10	3	2	10	-1.930	3.969	-9.709	5.850
5	IN	10	4	2	11	2.062	3.971	-5.721	9.845
5	IN	100	1	4	28	4.554	4.459	-4.187	13.294
5	IN	100	2	4	24	0.645	2.518	-4.291	5.581
5	IN	100	3	4	24	-1.410	4.618	-10.461	7.642
5	IN	100	4	4	28	-0.472	3.993	-8.298	7.354
5	MI	1	2	6	58	-1.223	2.382	-5.892	3.445
5	MI	1	3	5	49	-0.340	3.608	-7.411	6.731
5	MI	2	1	7	43	0.106	5.033	-9.759	9.971
5	MI	2	2	6	39	1.145	4.694	-8.056	10.345
5	MI	2	3	7	73	1.572	4.851	-7.937	11.080
5	MI	2	4	7	47	-0.449	3.522	-7.352	6.454
5	MN	1	3	4	56	-0.527	5.199	-10.717	9.663
5	MN	1	4	4	62	1.583	4.013	-6.283	9.449
5	OH	1	1	2	19	-1.152	2.141	-5.348	3.045
5	OH	1	3	2	14	-1.020	3.623	-8.122	6.081
5	OH	2	3	2	9	-0.728	3.163	-6.928	5.472
5	OH	2	4	4	23	3.144	5.339	-7.321	13.609
5	OH	4	1	3	28	-1.516	5.279	-11.862	8.830
5	OH	4	3	2	17	4.121	5.571	-6.799	15.041
5	OH	4	4	3	29	0.659	3.473	-6.147	7.465
5	OH	6	1	2	11	1.817	3.726	-5.486	9.120
5	OH	6	2	2	13	-0.308	6.106	-12.276	11.660
5	OH	6	3	2	13	-0.383	4.123	-8.463	7.697
5	OH	6	4	2	12	4.239	3.704	-3.021	11.500
5	OH	8	1	2	15	-1.176	5.233	-11.434	9.081
5	OH	9	1	5	33	-1.937	6.100	-13.893	10.019

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	9	3	5	28	-0.034	5.021	-9.875	9.806
5	OH	9	4	5	27	-1.259	4.224	-9.539	7.020
5	OH	10	1	2	14	0.984	1.978	-2.893	4.861
5	OH	10	2	2	13	-2.951	3.197	-9.218	3.316
5	OH	10	3	2	14	-3.557	1.523	-6.542	-0.572
5	OH	10	4	3	20	-1.783	2.208	-6.111	2.545
5	OH	12	2	2	13	2.109	9.069	-15.666	19.885
5	OH	12	4	2	8	1.552	5.140	-8.521	11.626
5	OH	14	1	2	10	1.348	5.387	-9.211	11.907
5	OH	14	3	4	34	1.206	4.388	-7.394	9.806
5	OH	14	4	4	36	2.693	3.855	-4.864	10.249
5	OH	15	2	2	22	1.616	2.828	-3.926	7.159
5	OH	15	3	2	18	-0.167	5.270	-10.496	10.162
5	WI	1	2	10	65	0.317	4.385	-8.276	8.911
5	WI	1	4	10	65	-1.906	2.380	-6.571	2.759
6	AR	1	2	2	13	-1.486	5.128	-11.536	8.565
6	AR	1	3	2	12	-5.278	6.530	-18.077	7.521
6	AR	1	4	2	14	-0.985	3.175	-7.208	5.237
6	LA	1	1	6	37	-7.273	3.923	-14.962	0.415
6	LA	1	2	7	47	-2.879	5.586	-13.828	8.070
6	NM	1	3	5	29	-0.655	5.558	-11.548	10.237
6	NM	1	4	8	39	-2.452	4.407	-11.090	6.187
6	OK	101	1	4	27	-0.064	2.984	-5.912	5.785
6	OK	101	2	4	28	-0.088	2.660	-5.302	5.126
6	OK	101	4	4	26	-1.240	2.954	-7.029	4.550
6	OK	103	2	2	12	-1.220	3.496	-8.071	5.632
6	OK	103	3	2	11	-3.704	7.271	-17.954	10.547
6	OK	103	4	2	12	-0.466	2.886	-6.123	5.190
6	TX	6	2	5	30	-6.889	3.503	-13.756	-0.022
6	TX	6	3	5	30	-8.222	3.101	-14.300	-2.144
6	TX	6	4	5	33	-6.395	3.188	-12.644	-0.147
7	IA	2	4	5	29	1.682	2.148	-2.528	5.892
7	IA	3	1	8	43	-0.176	3.051	-6.156	5.804
7	IA	3	2	8	37	0.251	3.380	-6.374	6.875
7	IA	3	3	8	41	0.668	4.559	-8.268	9.603
7	KC	1	2	2	7	0.169	3.201	-6.105	6.444
7	KC	1	3	2	9	0.675	7.930	-14.867	16.218
7	MO	1	2	2	12	-0.086	1.417	-2.863	2.691
7	MO	1	3	2	14	0.446	1.325	-2.151	3.042
7	MO	1	4	2	14	0.509	1.627	-2.680	3.699
7	MO	2	1	5	31	-0.243	4.159	-8.395	7.910
7	MO	2	2	5	32	-1.523	2.716	-6.847	3.801
7	MO	2	3	5	29	0.138	2.924	-5.593	5.868
7	MO	2	4	5	33	-1.646	3.452	-8.412	5.121
7	MO	3	1	3	22	-3.702	6.644	-16.725	9.321
7	MO	3	2	3	22	3.112	6.614	-9.851	16.074
7	MO	3	3	3	22	0.954	4.469	-7.806	9.714
7	MO	3	4	3	20	2.163	7.680	-12.889	17.215
7	MO	4	1	3	21	-1.437	2.529	-6.394	3.521
7	MO	4	2	3	18	-3.806	4.332	-12.296	4.685
7	MO	4	3	3	22	-2.909	3.206	-9.193	3.375
7	MO	5	1	2	13	-1.784	3.884	-9.397	5.829
7	MO	5	2	2	13	-2.924	3.291	-9.375	3.526
8	CO	1	2	2	10	-1.490	4.996	-11.282	8.301
8	CO	1	4	2	11	0.282	4.744	-9.017	9.580
8	MT	1	1	2	13	-3.192	3.089	-9.245	2.862
8	MT	1	2	2	24	-0.970	5.389	-11.533	9.592
8	MT	1	3	2	27	-2.072	4.803	-11.486	7.343
8	MT	1	4	2	25	0.830	7.927	-14.707	16.366
8	ND	1	1	5	33	-2.209	3.266	-8.610	4.193
8	ND	1	2	6	39	-2.877	3.341	-9.425	3.670

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
8	ND	1	3	6	40	-3.222	2.322	-7.773	1.329
8	ND	1	4	6	39	-1.453	2.810	-6.961	4.055
9	CA	1	4	19	128	-0.889	4.373	-9.460	7.683
9	CA	4	1	9	59	-3.290	4.256	-11.631	5.051
9	CA	4	3	10	66	-3.361	4.432	-12.047	5.325
9	CA	4	4	10	64	-0.977	3.313	-7.470	5.517
9	CA	36	1	6	35	2.735	4.414	-5.917	11.386
9	CA	36	2	6	38	8.175	4.202	-0.062	16.411
9	CA	36	3	6	34	1.761	6.074	-10.144	13.666
9	CA	61	2	16	89	-5.039	6.956	-18.673	8.595
10	WA	1	1	9	86	-0.355	2.592	-5.436	4.726

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	1	4	48	0.353	10.760	-20.737	21.443
1	CT	1	2	2	24	-0.769	5.712	-11.966	10.427
1	CT	1	3	2	16	-0.242	4.442	-8.948	8.464
1	MA	1	1	2	24	-0.361	6.298	-12.705	11.984
1	MA	1	2	2	29	-0.220	6.118	-12.212	11.772
1	MA	1	3	2	29	-3.780	3.977	-11.575	4.014
1	MA	1	4	2	30	-1.691	4.836	-11.169	7.787
1	ME	1	1	3	26	3.146	5.156	-6.960	13.252
1	ME	1	2	5	39	-0.476	7.883	-15.927	14.976
1	RI	1	1	2	21	0.661	13.366	-25.537	26.859
1	RI	1	2	2	29	-2.279	8.208	-18.367	13.809
1	RI	1	3	2	29	0.816	6.089	-11.118	12.750
1	RI	1	4	2	25	8.187	9.326	-10.091	26.465
1	VT	1	1	2	27	1.003	5.861	-10.484	12.490
2	NJ	1	1	3	37	2.561	10.438	-17.897	23.018
2	NJ	1	3	2	30	-2.111	7.268	-16.357	12.135
2	NY	1	1	8	115	-0.974	6.357	-13.433	11.485
3	DE	1	2	2	24	5.040	7.374	-9.412	19.492
3	DE	1	3	2	32	-0.169	6.345	-12.606	12.268
3	DE	1	4	2	20	-5.482	13.754	-32.441	21.477
3	MD	1	1	4	56	-4.579	3.754	-11.937	2.778
3	MD	1	2	2	27	-1.693	4.622	-10.752	7.366
3	MD	1	3	2	27	3.226	5.564	-7.679	14.130
3	MD	3	1	4	44	0.098	4.278	-8.287	8.483
3	MD	3	2	2	24	1.235	12.915	-24.078	26.548
3	MD	3	3	2	16	-1.870	6.991	-15.572	11.833
3	MD	3	4	2	25	-1.925	5.652	-13.003	9.152
3	MD	6	2	2	29	4.671	3.541	-2.270	11.612
3	MD	6	3	2	29	2.979	2.714	-2.341	8.298
3	MD	6	4	2	25	2.046	4.238	-6.261	10.352
3	PA	2	1	3	42	2.295	7.190	-11.797	16.387
3	PA	2	2	3	36	2.167	4.813	-7.266	11.600
3	PA	2	3	3	45	1.771	5.263	-8.545	12.087
3	PA	2	4	2	19	-1.916	4.454	-10.645	6.813
3	PA	3	1	3	30	6.261	4.954	-3.448	15.970
3	PA	3	2	3	27	5.867	5.132	-4.192	15.925
3	VA	1	1	2	22	0.372	9.620	-18.482	19.227
3	VA	1	2	3	44	-1.118	4.972	-10.863	8.626
3	VA	1	3	3	47	-2.973	3.907	-10.630	4.685
3	VA	3	1	2	28	1.498	10.528	-19.138	22.133
3	VA	3	2	2	29	-0.275	7.173	-14.335	13.784
3	VA	3	3	2	32	-3.021	10.912	-24.408	18.365
3	VA	3	4	2	27	-2.807	7.369	-17.250	11.635

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

--- POLLUTANT = TSP ---

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	WV	1	1	2	19	5.285	6.998	-8.431	19.000
3	WV	1	2	2	21	-2.025	9.118	-19.897	15.847
3	WV	1	3	2	29	3.182	4.324	-5.294	11.657
3	WV	1	4	2	25	4.170	9.323	-14.104	22.443
3	WV	2	1	2	26	-0.554	10.854	-21.829	20.720
3	WV	2	2	2	26	-3.851	7.936	-19.405	11.703
3	WV	2	3	2	30	-0.156	4.714	-9.396	9.083
3	WV	2	4	2	23	-0.508	3.694	-7.749	6.733
4	AL	11	1	3	38	-9.548	10.499	-30.127	11.031
4	AL	11	4	2	27	2.517	7.085	-11.368	16.403
4	AL	12	1	2	21	-2.125	9.061	-19.885	15.635
4	AL	12	2	2	27	-0.755	6.542	-13.578	12.068
4	AL	13	4	2	22	2.100	5.342	-8.371	12.570
4	AL	14	2	2	45	-2.356	7.424	-16.908	12.196
4	AL	14	3	2	44	-3.732	7.172	-17.790	10.325
4	FL	1	1	3	23	-4.512	8.460	-21.094	12.069
4	FL	1	2	2	30	0.724	4.272	-7.649	9.097
4	FL	1	3	2	28	-2.702	3.079	-8.737	3.333
4	FL	1	4	2	27	0.189	4.566	-8.759	9.138
4	FL	2	1	2	29	0.227	3.822	-7.264	7.718
4	FL	2	2	2	28	-4.166	5.007	-13.979	5.648
4	FL	2	3	4	56	-0.125	5.262	-10.439	10.189
4	FL	3	1	2	25	7.375	13.757	-19.589	34.340
4	FL	3	2	2	24	3.492	12.521	-21.050	28.033
4	FL	3	3	2	22	-1.772	7.111	-15.710	12.167
4	FL	3	4	2	26	0.528	13.414	-25.763	26.820
4	FL	5	1	2	25	4.091	6.552	-8.751	16.934
4	FL	5	3	2	16	-0.680	13.307	-26.763	25.402
4	FL	5	4	2	24	-0.096	5.779	-11.422	11.230
4	FL	6	1	2	27	-2.679	5.284	-13.036	7.678
4	FL	7	1	2	25	-0.903	6.187	-13.030	11.224
4	FL	11	1	3	25	0.420	8.078	-15.414	16.254
4	FL	11	2	2	21	-1.787	8.142	-17.746	14.171
4	FL	11	3	2	22	3.838	9.942	-15.649	23.325
4	FL	11	4	2	29	4.968	10.626	-15.860	25.796
4	FL	12	1	2	26	-0.392	9.029	-18.089	17.306
4	FL	12	4	2	29	1.199	9.862	-18.131	20.529
4	FL	13	4	2	24	-4.946	7.105	-18.871	8.979
4	FL	14	1	2	25	-5.993	16.517	-38.367	26.381
4	FL	14	2	2	24	6.870	12.949	-18.511	32.251
4	FL	14	3	2	22	8.580	9.357	-9.759	26.920
4	FL	14	4	2	26	0.747	10.022	-18.897	20.390
4	FL	16	1	2	25	-0.431	6.494	-13.159	12.298
4	FL	16	2	2	23	-2.151	4.486	-10.944	6.641
4	FL	16	4	2	17	0.995	7.981	-14.647	16.637
4	FL	17	1	3	39	0.613	6.845	-12.804	14.030
4	FL	17	2	3	36	1.005	8.538	-15.730	17.739
4	FL	17	3	3	41	-0.702	6.520	-13.480	12.077
4	FL	17	4	3	41	-1.590	6.726	-14.773	11.593
4	FL	18	1	2	26	-4.608	4.527	-13.480	4.265
4	FL	18	2	2	27	1.081	5.041	-8.799	10.960
4	FL	18	3	2	31	-1.875	8.591	-18.714	14.964
4	FL	18	4	2	28	-1.350	3.667	-8.538	5.838
4	FL	20	1	2	28	2.801	9.305	-15.436	21.038
4	FL	20	2	2	29	1.606	5.160	-8.508	11.720
4	FL	20	3	2	30	2.781	5.594	-8.183	13.745
4	FL	20	4	2	21	3.664	5.587	-7.286	14.614
4	GA	10	1	3	35	-2.184	5.220	-12.415	8.047
4	GA	10	2	3	42	-2.841	9.523	-21.507	15.825
4	GA	10	3	3	40	0.743	4.477	-8.033	9.518
4	GA	10	4	3	40	4.638	7.379	-9.824	19.100

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

--- POLLUTANT = TSP ---

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	KY	1	2	7	99	-0.216	7.873	-15.647	15.215
4	KY	1	3	7	102	0.194	7.796	-15.086	15.473
4	KY	1	4	7	94	-0.408	8.199	-16.477	15.662
4	KY	2	1	2	30	0.337	7.502	-14.367	15.041
4	KY	2	2	2	18	2.903	8.964	-14.667	20.473
4	MS	100	1	3	42	0.057	7.373	-14.394	14.508
4	NC	1	2	8	103	-0.592	5.063	-10.516	9.332
4	NC	1	4	8	100	-0.650	7.469	-15.289	13.989
4	NC	3	2	2	29	0.352	5.835	-11.084	11.787
4	NC	3	3	2	29	0.976	4.219	-7.294	9.245
4	NC	3	4	2	25	0.759	4.878	-8.802	10.320
4	NC	4	1	2	26	9.102	11.101	-12.656	30.860
4	NC	4	2	2	26	1.207	4.257	-7.137	9.552
4	SC	1	1	4	44	1.658	6.437	-10.958	14.275
4	SC	1	2	4	48	-2.073	6.566	-14.943	10.797
4	SC	1	3	4	47	0.420	4.212	-7.835	8.675
4	TN	3	2	2	30	-1.096	3.168	-7.305	5.114
4	TN	3	4	2	29	1.231	3.183	-5.007	7.469
4	TN	5	1	2	27	0.501	2.859	-5.102	6.104
5	IL	1	1	2	28	-0.950	8.941	-18.474	16.574
5	IL	1	2	2	15	0.350	3.301	-6.120	6.821
5	IL	1	4	2	26	-0.503	6.169	-12.595	11.588
5	IL	3	1	2	29	6.461	10.503	-14.125	27.048
5	IL	3	2	2	25	-1.896	9.000	-19.536	15.745
5	IL	3	4	2	22	-5.710	6.157	-17.777	6.357
5	IN	1	1	2	28	-2.879	4.320	-11.345	5.588
5	IN	1	3	2	21	-4.298	5.675	-15.420	6.824
5	IN	2	1	2	19	3.132	3.001	-2.750	9.014
5	IN	2	2	2	10	-0.049	7.674	-15.089	14.992
5	IN	3	1	2	25	0.019	5.464	-10.692	10.729
5	IN	3	2	2	21	2.029	5.048	-7.865	11.922
5	IN	3	3	2	21	3.997	8.730	-13.113	21.107
5	IN	5	1	2	27	-0.264	5.165	-10.387	9.859
5	IN	5	2	2	27	-2.834	7.432	-17.402	11.733
5	IN	9	1	2	22	-0.676	3.447	-7.433	6.081
5	IN	9	2	2	22	1.945	3.551	-5.015	8.905
5	IN	9	3	2	31	-0.769	2.418	-5.508	3.970
5	IN	9	4	2	29	1.010	3.381	-5.617	7.638
5	IN	10	2	2	19	-3.662	4.042	-11.585	4.260
5	IN	100	1	3	40	-1.753	6.855	-15.190	11.683
5	IN	100	2	3	39	3.516	11.318	-18.668	25.699
5	IN	100	3	3	31	0.780	6.615	-12.185	13.745
5	MI	1	1	2	30	0.011	5.809	-11.374	11.397
5	MI	1	2	2	26	0.216	5.877	-11.303	11.735
5	MI	1	3	2	25	3.388	2.612	-1.732	8.507
5	MI	1	4	2	28	2.892	3.280	-3.536	9.320
5	MI	2	1	2	24	-1.072	8.127	-17.001	14.857
5	MI	2	2	2	25	5.657	10.021	-13.984	25.298
5	MI	2	4	2	26	1.205	6.328	-11.198	13.607
5	MN	1	1	2	26	0.841	5.746	-10.421	12.102
5	OH	2	2	2	23	-4.109	5.410	-14.713	6.494
5	OH	4	2	2	25	8.521	5.328	-1.921	18.963
5	OH	4	3	2	26	5.784	6.000	-5.976	17.544
5	OH	5	1	2	20	-8.413	12.480	-32.873	16.047
5	OH	6	1	2	19	-1.247	4.287	-9.650	7.157
5	OH	6	2	2	26	0.861	3.923	-6.828	8.550
5	OH	7	1	2	30	3.094	3.209	-3.196	9.383
5	OH	7	2	2	28	1.800	2.854	-3.793	7.393
5	OH	7	3	2	31	3.067	3.461	-3.717	9.850
5	OH	8	1	3	39	-5.552	6.612	-18.511	7.407
5	OH	8	2	3	39	-3.524	4.786	-12.905	5.856

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	8	3	2	30	-1.316	10.667	-22.223	19.591
5	OH	8	4	2	17	7.155	9.774	-12.001	26.312
5	OH	9	1	2	28	4.982	5.294	-5.394	15.357
5	OH	9	4	2	26	-8.220	9.777	-27.382	10.942
5	OH	10	1	3	39	2.039	8.512	-14.644	18.722
5	OH	10	3	3	44	4.579	3.998	-3.258	12.415
5	OH	12	1	2	21	8.713	7.375	-5.743	23.169
5	OH	12	2	2	24	7.095	9.382	-11.294	25.485
5	OH	12	3	2	24	-3.472	5.719	-14.681	7.737
5	OH	13	1	2	30	1.000	4.134	-7.103	9.102
5	OH	13	2	2	28	-2.987	5.794	-14.343	8.370
5	OH	13	3	2	28	-0.138	2.856	-5.736	5.459
5	OH	15	1	2	29	2.278	4.098	-5.754	10.309
5	OH	15	2	2	29	0.769	3.483	-6.058	7.596
5	OH	15	3	2	32	1.421	2.656	-3.786	6.628
5	OH	15	4	2	24	2.685	5.462	-8.020	13.390
5	OH	16	1	2	30	-2.373	4.348	-10.896	6.149
5	OH	16	3	2	32	0.472	2.810	-5.037	5.980
5	WI	1	1	3	37	1.491	9.173	-16.488	19.471
5	WI	1	2	3	40	2.171	8.852	-15.178	19.521
5	WI	1	3	3	46	0.690	5.633	-10.350	11.730
5	WI	1	4	2	24	1.355	10.200	-18.637	21.347
6	AR	1	1	2	24	-3.659	9.383	-22.050	14.732
6	AR	1	2	2	27	0.956	13.118	-24.755	26.666
6	AR	1	4	2	22	-4.736	10.465	-25.247	15.775
6	LA	1	3	2	31	1.858	5.662	-9.240	12.955
6	NM	1	2	4	48	0.012	13.490	-26.430	26.453
6	NM	1	3	3	41	1.571	7.420	-12.972	16.114
6	NM	1	4	3	39	-1.209	11.083	-22.931	20.513
6	OK	101	1	2	21	5.516	9.894	-13.877	24.908
6	OK	101	2	2	24	6.559	5.290	-3.808	16.927
6	OK	101	3	2	17	5.730	5.597	-5.239	16.700
6	OK	102	1	2	25	1.494	9.807	-17.728	20.717
6	OK	102	2	2	28	0.031	8.598	-16.821	16.883
6	OK	102	3	2	30	-0.716	7.893	-16.186	14.754
6	OK	102	4	2	26	-3.438	6.490	-16.158	9.283
6	OK	103	2	2	17	-1.025	3.228	-7.352	5.302
6	OK	103	3	2	25	-1.197	8.693	-18.235	15.842
6	OK	103	4	2	26	-4.446	5.776	-15.767	6.876
6	TX	1	1	4	58	1.885	8.961	-15.680	19.449
6	TX	1	2	4	56	-0.949	9.940	-20.431	18.534
6	TX	2	1	3	38	2.397	4.980	-7.364	12.159
6	TX	2	2	3	35	1.740	3.296	-4.721	8.200
6	TX	2	3	3	15	2.487	4.568	-6.466	11.440
6	TX	3	1	2	29	2.697	9.100	-15.139	20.534
6	TX	4	2	2	25	-0.433	5.509	-11.230	10.364
6	TX	4	3	2	23	-2.670	8.815	-19.948	14.608
6	TX	5	2	2	23	7.785	15.522	-22.637	38.208
6	TX	6	3	2	28	-6.474	6.958	-20.111	7.163
6	TX	6	4	2	26	-3.561	5.796	-14.922	7.800
7	IA	3	1	2	26	0.706	16.421	-31.480	32.892
7	IA	3	3	2	24	1.434	10.347	-18.846	21.713
7	IA	3	4	3	26	7.835	15.752	-23.039	38.710
7	KC	1	3	3	43	-2.720	6.357	-15.180	9.741
7	KC	1	4	3	37	-2.763	9.491	-21.366	15.841
7	NB	1	1	2	29	3.382	15.376	-26.754	33.518
7	NB	1	2	2	22	1.182	20.315	-38.635	40.998
7	NB	1	3	2	22	-3.729	10.694	-24.690	17.232
7	NB	1	4	2	22	1.081	12.817	-24.039	26.202
7	NB	3	2	2	29	-2.760	2.816	-8.280	2.760
7	NB	3	3	2	32	-0.846	4.213	-9.103	7.411

TABLE C-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES BY QUARTER

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	QUARTER	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
8	CO	1	1	2	29	2.626	14.253	-25.309	30.561
8	CO	1	2	3	40	-1.841	14.184	-29.642	25.961
8	CO	1	3	3	44	-0.068	5.749	-11.336	11.201
8	CO	1	4	3	42	-1.599	7.423	-16.147	12.950
8	MT	3	3	2	14	-12.225	18.200	-47.897	23.447
8	WY	1	1	2	19	1.819	9.901	-17.587	21.225
8	WY	1	2	2	24	-0.677	9.173	-18.657	17.302
8	WY	1	3	2	29	-0.629	5.581	-11.567	10.309
8	WY	1	4	2	24	-5.453	6.201	-17.607	6.701
9	CA	1	1	4	45	0.722	7.777	-14.521	15.966
9	CA	1	2	4	51	-1.142	4.336	-9.642	7.357
9	CA	1	3	4	34	1.072	4.537	-7.820	9.964
9	CA	4	3	2	31	3.073	2.891	-2.592	8.739
9	CA	4	4	2	30	-0.991	5.380	-11.536	9.554
9	CA	61	1	7	99	-2.234	8.718	-19.322	14.853
9	CA	61	2	7	96	-2.300	8.776	-19.501	14.901
9	CA	61	3	7	99	-2.257	6.770	-15.526	11.012
9	HI	120	1	2	26	-2.424	6.759	-15.672	10.824
9	HI	120	2	2	18	-3.490	3.090	-9.546	2.567
10	ID	1	1	2	30	-0.707	7.703	-15.806	14.392
10	ID	1	2	2	40	-2.639	9.178	-20.628	15.350
10	WA	1	1	5	63	3.952	9.293	-14.263	22.167
10	WA	1	2	5	62	4.731	6.987	-8.962	18.425
10	WA	1	3	5	60	1.567	5.587	-9.383	12.517

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	5	92	-0.074	7.861	-15.482	15.334
1	MA	1	8	187	1.498	3.374	-5.114	8.111
1	RI	1	2	103	0.297	2.775	-5.143	5.737
3	DC	1	2	54	0.272	2.377	-4.387	4.931
3	DE	1	2	40	1.823	3.737	-5.502	9.148
3	MD	1	7	163	-0.228	2.477	-5.082	4.627
3	VA	1	8	235	0.225	2.520	-4.714	5.163
3	WV	1	2	41	1.445	4.153	-6.695	9.586
4	AL	12	10	114	0.244	4.968	-9.494	9.981
4	FL	12	5	109	1.889	6.596	-11.038	14.817
4	FL	16	2	46	0.829	2.512	-4.095	5.752
4	FL	20	2	83	-0.200	3.139	-6.353	5.953
4	KY	2	8	65	-2.789	3.933	-10.498	4.920
4	NC	3	6	113	-2.585	4.086	-10.594	5.424
4	TN	3	6	58	-1.088	1.404	-3.840	1.665
5	IL	3	4	146	-2.516	3.278	-8.940	3.908
5	IN	2	2	24	-1.418	2.946	-7.192	4.356
5	IN	8	3	82	-2.037	2.820	-7.563	3.490
5	IN	100	2	50	-2.204	3.602	-9.263	4.855
5	MI	1	5	179	0.239	3.205	-6.043	6.522
5	OH	6	2	52	-0.424	3.343	-6.976	6.128
5	OH	10	2	50	-0.723	2.092	-4.823	3.378
5	WI	1	7	179	2.030	4.804	-7.385	11.445
6	LA	1	4	66	0.988	3.678	-6.220	8.197
6	OK	102	2	54	4.270	3.424	-2.440	10.980
6	OK	103	3	36	-1.680	2.983	-7.526	4.166
6	TX	2	3	87	-0.134	3.122	-6.253	5.986
7	KC	1	5	107	1.309	6.616	-11.659	14.277
7	MO	3	2	69	3.839	9.949	-15.662	23.340
7	MO	4	3	79	0.188	3.470	-6.614	6.990
7	NB	2	3	46	0.729	0.707	-0.657	2.115
8	MT	2	2	22	-2.095	7.732	-17.249	13.059
9	HI	120	2	91	0.547	2.276	-3.914	5.008
10	ID	1	2	60	1.272	3.397	-5.386	7.931

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	3	47	3.791	7.646	-11.195	18.776
1	MA	1	8	109	-1.672	7.884	-17.125	13.781
1	RI	1	2	50	6.074	3.849	-1.469	13.618
1	VT	1	2	52	-2.561	3.724	-9.861	4.738
2	NJ	1	8	168	-1.232	7.601	-16.131	13.666
2	NY	1	7	147	1.612	5.067	-8.320	11.544
3	DC	1	2	41	-2.268	4.434	-10.959	6.424
3	MD	1	4	54	0.837	3.416	-5.858	7.533
3	PA	2	3	146	-1.592	6.644	-14.614	11.431
3	PA	3	3	57	-0.457	4.294	-8.874	7.960
3	VA	3	4	88	-1.243	5.461	-11.946	9.460
3	WV	1	3	60	0.097	9.135	-17.808	18.001
3	WV	2	2	83	2.277	3.962	-5.489	10.044
4	FL	11	2	28	7.098	4.562	-1.843	16.039
4	FL	13	2	18	2.573	8.645	-14.370	19.517
4	FL	18	2	63	3.921	4.731	-5.352	13.195
4	GA	10	2	61	1.407	4.424	-7.263	10.078
4	KY	1	14	156	0.325	8.157	-15.662	16.313
4	NC	2	2	70	2.894	7.108	-11.038	16.826
5	IL	1	9	305	-0.594	5.332	-11.045	9.857

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IL	3	5	157	-1.167	3.886	-8.783	6.449
5	IN	1	2	33	-1.973	5.056	-11.883	7.936
5	OH	8	2	50	4.168	8.971	-13.414	21.751
5	OH	9	2	67	-1.272	5.238	-11.537	8.994
6	NM	1	2	38	1.768	6.415	-10.805	14.340
6	TX	2	2	69	0.555	6.708	-12.593	13.703
6	TX	6	3	53	-0.255	1.297	-2.797	2.288
7	MO	1	2	44	-0.065	2.737	-5.429	5.299
7	MO	3	2	56	-0.235	6.599	-13.168	12.699
7	MO	4	2	53	-0.326	5.201	-10.520	9.868
8	ND	1	4	50	-0.917	2.700	-6.209	4.376
9	CA	36	7	125	-0.062	5.679	-11.192	11.068

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	7	127	0.965	2.913	-4.744	6.674
1	VT	1	2	36	-0.236	2.506	-5.147	4.676
2	NJ	1	14	296	-1.403	5.907	-12.981	10.176
3	DC	1	2	47	0.702	3.339	-5.842	7.247
3	MD	1	17	329	-0.118	2.666	-5.344	5.108
3	PA	2	4	128	-0.215	3.292	-6.667	6.237
3	PA	3	3	29	2.031	4.714	-7.208	11.270
3	VA	3	4	80	-0.820	4.012	-8.684	7.045
3	VA	815	3	92	-2.124	3.390	-8.768	4.520
3	WV	1	4	98	-0.295	5.170	-10.429	9.839
3	WV	2	2	84	0.152	4.744	-9.147	9.451
4	AL	11	5	39	-0.338	4.157	-8.486	7.811
4	AL	12	9	82	-4.041	4.420	-12.704	4.622
4	AL	13	4	20	-7.222	19.468	-45.380	30.936
4	AL	14	2	24	-0.806	3.657	-7.974	6.363
4	FL	5	2	26	1.462	4.422	-7.206	10.129
4	FL	11	4	143	-4.086	6.888	-17.587	9.415
4	FL	12	3	56	3.497	4.376	-5.080	12.073
4	FL	13	3	56	-0.919	3.134	-7.063	5.224
4	FL	15	2	46	-2.161	2.570	-7.199	2.877
4	FL	17	6	85	-1.235	2.219	-5.584	3.114
4	FL	18	3	109	-2.022	3.372	-8.631	4.588
4	KY	1	17	238	-0.047	6.639	-13.060	12.966
4	KY	2	2	25	-4.135	6.440	-16.756	8.487
4	NC	2	3	89	-0.764	2.323	-5.317	3.789
4	NC	3	3	76	1.920	4.504	-6.908	10.748
4	NC	4	2	11	3.258	4.417	-5.398	11.915
4	TN	1	2	34	0.704	2.963	-5.104	6.512
4	TN	2	2	37	-0.379	1.971	-4.242	3.483
4	TN	3	4	38	0.814	1.913	-2.937	4.564
4	TN	4	2	30	-1.836	5.401	-12.421	8.749
4	TN	5	4	34	0.488	3.880	-7.116	8.092
5	IL	3	9	238	-0.457	4.056	-8.406	7.492
5	IN	2	2	26	0.119	3.802	-7.334	7.571
5	IN	8	6	81	0.088	3.381	-6.538	6.714
5	IN	100	3	35	-1.884	4.301	-10.313	6.545
5	MI	2	4	56	-1.684	2.970	-7.504	4.137
5	OH	1	3	11	-0.909	7.343	-15.301	13.483
5	OH	2	3	28	0.394	5.698	-10.774	11.562
5	OH	6	2	32	1.215	3.453	-5.553	7.983
5	OH	7	2	34	-0.868	1.756	-4.309	2.574
5	OH	8	7	93	-0.388	8.618	-17.279	16.504

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

-- POLLUTANT = O3 --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	9	3	39	0.829	3.885	-6.786	8.444
5	OH	10	4	58	-0.387	2.856	-5.985	5.211
5	OH	12	2	30	-1.402	7.655	-16.406	13.602
5	OH	15	2	41	-0.732	3.285	-7.170	5.706
6	AR	1	3	36	1.093	4.675	-8.070	10.256
6	NM	2	3	10	4.362	4.376	-4.215	12.939
6	OK	103	3	53	0.449	3.366	-6.149	7.046
6	TX	6	6	114	-5.702	3.105	-11.788	0.384
7	IA	1	2	36	-1.170	3.394	-7.822	5.482
7	IA	2	3	47	0.965	2.469	-3.874	5.804
7	MO	2	5	73	-1.793	3.102	-7.874	4.287
7	MO	3	4	71	-1.251	3.664	-8.433	5.931
7	MO	4	3	59	0.183	3.751	-7.169	7.536
7	MO	5	2	48	-2.192	2.133	-6.372	1.988
8	ND	1	3	36	0.278	4.660	-8.855	9.411
8	UT	1	5	146	1.065	3.287	-5.377	7.507
9	AZ	13	8	104	-1.667	1.911	-5.413	2.078
9	AZ	200	8	39	-2.631	2.619	-7.764	2.501
9	NV	300	2	7	-0.276	4.348	-8.799	8.246
10	WA	1	5	114	1.412	3.078	-4.621	7.446

-- POLLUTANT = PB --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	NJ	1	2	5	-5.064	6.771	-18.334	8.206
2	NY	1	2	42	5.229	8.498	-11.426	21.885
3	PA	3	2	26	0.357	4.631	-8.719	9.434
4	AL	11	2	43	-0.040	16.467	-32.315	32.236
4	AL	12	4	91	-3.741	15.806	-34.721	27.239
4	TN	1	2	21	-1.591	10.678	-22.521	19.339
6	AR	1	2	26	-2.502	22.195	-46.005	41.001
6	NM	1	2	24	0.182	6.787	-13.121	13.485
6	TX	1	2	33	-1.826	12.702	-26.721	23.070
7	MO	6	2	19	3.737	17.826	-31.202	38.676
9	AZ	13	2	13	-0.339	3.256	-6.720	6.042
9	CA	61	2	9	-1.478	5.387	-12.037	9.080

-- POLLUTANT = PM10 --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	2	42	-1.545	5.344	-12.020	8.930
1	ME	1	5	36	-4.928	4.336	-13.427	3.571
1	ME	108	2	11	-1.287	3.749	-8.635	6.061
1	VT	1	2	25	2.233	5.548	-8.641	13.107
3	DE	1	2	44	4.848	14.265	-23.111	32.807
3	MD	1	2	52	1.253	6.052	-10.609	13.115
3	PA	1	5	232	0.066	8.482	-16.557	16.690
3	VA	1	2	69	1.294	3.982	-6.511	9.099
4	AL	11	2	40	3.057	6.236	-9.166	15.280
4	AL	12	4	78	-1.005	7.921	-16.531	14.520
4	AL	13	2	31	23.175	16.575	-9.312	55.661
4	KY	1	2	48	1.259	2.809	-4.248	6.765
4	KY	2	3	84	2.241	9.498	-16.375	20.857
4	MS	100	4	120	2.012	7.551	-12.788	16.812
4	NC	1	2	83	2.587	7.825	-12.751	17.925

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

-- POLLUTANT = PM10 --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	TN	2	2	33	0.920	8.841	-16.409	18.248
4	TN	3	2	31	-1.933	3.477	-8.748	4.882
4	TN	5	3	83	0.607	3.315	-5.891	7.104
5	IL	2	2	32	-4.634	14.206	-32.477	23.209
5	IN	5	3	76	-0.750	7.414	-15.282	13.782
5	IN	8	2	93	2.535	6.796	-10.785	15.854
5	IN	100	3	50	-0.274	6.161	-12.349	11.801
5	MI	1	3	49	-2.140	10.955	-23.612	19.332
5	OH	8	2	27	-3.148	8.748	-20.295	13.999
5	OH	9	2	35	0.872	11.242	-21.163	22.907
6	NM	1	4	68	-1.001	11.180	-22.912	20.911
6	OK	103	2	22	2.322	3.791	-5.109	9.753
6	TX	1	2	11	-1.740	9.730	-20.810	17.330
7	IA	1	2	35	1.571	6.036	-10.258	13.401
7	IA	3	3	90	9.958	14.790	-19.030	38.946
7	MO	1	2	27	-11.079	11.182	-32.995	10.837
7	NB	1	2	60	3.079	16.983	-30.209	36.366
8	MT	1	2	176	-0.711	11.708	-23.660	22.237
8	UT	1	2	92	0.668	8.513	-16.018	17.354
9	HI	120	2	29	-4.046	6.227	-16.250	8.158
10	AK	1	3	67	1.344	6.613	-11.617	14.305
10	ID	1	2	100	1.291	4.424	-7.379	9.962

-- POLLUTANT = SO2 --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	MA	1	11	295	-2.193	4.572	-11.154	6.768
1	ME	1	3	95	-4.713	5.035	-14.581	5.155
1	ME	110	3	51	-1.105	3.184	-7.347	5.136
1	ME	113	3	56	-0.013	2.298	-4.518	4.492
1	VT	1	3	69	-2.946	2.433	-7.715	1.823
2	PR	2	2	97	-2.922	4.258	-11.267	5.423
3	DC	1	2	50	-2.619	4.199	-10.849	5.610
3	MD	1	7	162	-0.321	2.451	-5.126	4.484
3	VA	3	4	94	-1.905	7.478	-16.562	12.751
3	WV	1	6	129	3.265	6.359	-9.198	15.728
4	FL	7	2	23	-5.204	6.385	-17.719	7.311
4	FL	12	5	85	2.236	4.637	-6.853	11.325
4	FL	15	2	44	-4.446	3.817	-11.927	3.034
4	KY	2	4	51	-0.870	4.911	-10.495	8.754
4	MS	100	3	76	-7.840	4.801	-17.250	1.571
4	SC	1	3	47	-0.205	6.485	-12.916	12.506
4	TN	1	2	82	-1.699	3.621	-8.796	5.399
4	TN	2	2	11	-0.063	3.502	-6.928	6.802
4	TN	3	2	17	2.246	1.904	-1.487	5.978
5	IN	1	10	169	0.065	5.612	-10.936	11.065
5	IN	8	3	77	-0.434	3.143	-6.595	5.727
5	IN	10	2	31	-0.135	4.562	-9.077	8.808
5	IN	100	4	104	0.922	4.717	-8.323	10.168
5	OH	1	2	62	-0.382	3.366	-6.979	6.214
5	OH	2	4	38	1.348	5.115	-8.677	11.373
5	OH	4	4	95	0.475	5.274	-9.862	10.812
5	OH	8	3	36	-1.774	5.910	-13.356	9.809
5	OH	9	5	119	-1.191	5.527	-12.023	9.641
5	OH	10	3	61	-1.804	2.851	-7.392	3.783
5	OH	12	2	43	1.341	5.593	-9.621	12.302
5	OH	14	5	94	1.830	4.614	-7.214	10.874
5	OH	15	2	69	-0.202	4.636	-9.288	8.884

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

--- POLLUTANT = SO2 ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	WI	1	10	259	-0.400	3.971	-8.184	7.384
6	AR	1	2	51	-2.252	5.195	-12.434	7.930
6	NM	1	9	139	-1.984	6.363	-14.455	10.488
6	OK	103	2	35	-1.742	4.751	-11.055	7.571
6	TX	6	5	93	-7.144	3.447	-13.899	-0.389
7	IA	2	5	37	2.044	2.729	-3.306	7.393
7	IA	3	8	175	0.935	4.562	-8.007	9.877
7	KC	1	3	31	-0.493	5.755	-11.773	10.787
7	MO	2	5	125	-0.853	3.529	-7.769	6.064
7	MO	3	3	86	0.596	7.205	-13.525	14.718
7	MO	4	3	61	-2.667	3.429	-9.388	4.055
7	MO	5	2	52	-3.077	4.207	-11.322	5.168
8	CO	1	2	35	-0.936	4.342	-9.445	7.574
8	MT	1	2	89	-1.123	5.954	-12.794	10.547
8	ND	1	6	151	-2.455	3.183	-8.694	3.785
9	CA	4	10	189	-2.532	4.232	-10.827	5.764
9	CA	36	6	107	4.357	5.809	-7.029	15.744

--- POLLUTANT = TSP ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	4	88	-0.057	8.694	-17.097	16.984
1	MA	1	2	112	-1.566	5.645	-12.630	9.498
1	ME	1	7	98	-0.435	8.469	-17.035	16.165
1	ME	109	2	85	-2.408	6.384	-14.921	10.105
1	ME	112	2	22	-2.445	7.012	-16.188	11.299
2	NJ	1	3	67	0.469	9.376	-17.908	18.845
3	MD	3	4	109	-0.405	8.992	-18.028	17.219
3	MD	5	2	75	0.803	3.296	-5.657	7.262
3	MD	6	4	139	3.146	4.674	-6.015	12.306
3	PA	3	3	57	6.074	5.227	-4.170	16.318
3	VA	1	4	145	-1.616	5.530	-12.454	9.222
3	WV	1	2	94	2.706	7.816	-12.613	18.026
3	WV	2	3	105	-1.247	7.757	-16.451	13.958
4	AL	12	3	78	-0.893	9.404	-19.325	17.538
4	AL	14	5	154	-1.103	7.744	-16.281	14.075
4	FL	1	3	108	-1.413	6.487	-14.128	11.302
4	FL	2	4	138	-0.360	6.307	-12.721	12.001
4	FL	3	2	97	2.505	12.388	-21.775	26.785
4	FL	6	2	50	-3.255	5.254	-13.553	7.044
4	FL	7	2	25	-0.903	6.187	-13.030	11.224
4	FL	11	3	97	2.077	9.670	-16.875	21.030
4	FL	12	2	87	0.178	8.715	-16.903	17.258
4	FL	13	2	24	-4.946	7.105	-18.871	8.979
4	FL	14	2	97	2.301	14.041	-25.219	29.821
4	FL	16	3	79	-0.875	7.529	-15.632	13.881
4	FL	17	6	157	-0.216	7.345	-14.611	14.180
4	FL	18	2	112	-1.666	6.259	-13.933	10.602
4	FL	20	2	108	2.642	6.550	-10.195	15.480
4	GA	10	3	157	0.124	7.926	-15.411	15.659
4	KY	1	14	391	0.043	7.999	-15.635	15.721
4	KY	2	4	48	1.300	8.064	-14.507	17.106
4	MS	100	4	88	-1.003	7.617	-15.932	13.927
4	NC	3	2	111	-0.010	5.244	-10.288	10.268
4	NC	4	2	54	5.088	9.271	-13.082	23.259
4	SC	1	4	140	-0.069	6.187	-12.195	12.057
4	TN	2	2	21	0.182	8.201	-15.891	16.255
4	TN	3	2	59	0.048	3.334	-6.486	6.582

TABLE C-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS

--- POLLUTANT = TSP ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IL	1	2	69	-0.499	6.955	-14.131	13.133
5	IL	3	2	76	0.189	11.566	-22.480	22.858
5	IN	1	2	54	-3.253	4.941	-12.938	6.432
5	IN	3	2	67	1.895	7.015	-11.854	15.645
5	IN	5	3	68	-1.357	6.484	-14.065	11.352
5	IN	10	2	53	-1.068	4.903	-10.679	8.542
5	IN	100	3	110	0.829	8.985	-16.782	18.439
5	MI	1	2	109	1.575	5.014	-8.252	11.401
5	OH	5	2	50	-1.499	11.393	-23.829	20.831
5	OH	8	4	125	-2.175	8.531	-18.895	14.546
5	OH	10	3	137	3.039	5.928	-8.580	14.657
5	OH	12	2	77	3.711	9.237	-14.393	21.815
5	OH	13	2	98	-0.615	4.812	-10.047	8.817
5	OH	14	2	57	2.893	17.283	-30.981	36.767
5	OH	15	2	114	1.739	3.984	-6.070	9.549
5	OH	16	2	62	-0.905	3.873	-8.496	6.686
5	WI	1	3	147	1.403	8.482	-15.221	18.028
6	AR	1	3	103	-3.573	10.561	-24.272	17.126
6	NM	1	4	149	-1.333	11.881	-24.620	21.954
6	OK	101	2	77	4.375	9.088	-13.438	22.187
6	OK	102	2	109	-0.666	8.324	-16.980	15.648
6	OK	103	4	68	-2.396	6.614	-15.360	10.568
6	TX	1	4	129	0.162	9.447	-18.353	18.678
6	TX	3	2	58	1.266	8.286	-14.975	17.507
6	TX	4	2	60	-1.099	7.383	-15.569	13.372
6	TX	5	2	44	4.449	16.348	-27.594	36.492
6	TX	6	2	82	-3.393	6.676	-16.478	9.692
7	IA	3	3	90	3.067	14.245	-24.853	30.987
7	KC	1	3	153	-0.283	9.254	-18.421	17.855
7	NB	1	3	95	0.693	15.044	-28.793	30.179
8	CO	1	3	155	-0.436	10.674	-21.357	20.485
8	MT	3	2	52	-3.269	14.813	-32.302	25.764
8	SD	1	2	45	-2.400	7.438	-16.978	12.177
8	WY	1	2	96	-1.363	8.812	-18.635	15.910
9	CA	1	6	162	0.525	5.398	-10.055	11.105
9	CA	4	2	91	0.700	4.879	-8.864	10.264
9	CA	61	8	294	-2.263	8.352	-18.633	14.106
9	HI	120	2	69	-1.812	5.619	-12.825	9.200
10	ID	1	2	83	-1.194	9.311	-19.445	17.057

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

POLLUTANT = CO

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	4	2	69	0.156	3.004	-5.731	6.044
3	VA	2	2	85	0.079	2.602	-5.021	5.180
3	VA	3	2	88	-1.016	1.756	-4.458	2.425
3	VA	4	2	84	-0.696	2.593	-5.778	4.385
3	WV	1	2	33	-2.334	5.088	-12.306	7.637
3	WV	2	2	37	-1.634	4.870	-11.179	7.911
3	WV	3	2	31	-9.004	4.693	-18.202	0.193
4	AL	4	2	39	-0.827	4.939	-10.508	8.854
4	KY	2	2	49	1.119	4.004	-6.730	8.967
4	KY	3	2	45	0.085	4.457	-8.651	8.821
4	KY	4	2	50	2.395	6.523	-10.391	15.181
4	NC	1	2	57	-0.986	2.263	-5.422	3.449
4	NC	2	3	79	-1.616	3.355	-8.192	4.960
4	TN	3	3	21	0.036	2.245	-4.365	4.436
4	TN	4	3	67	-0.258	1.782	-3.750	3.234
5	IL	1	2	135	-0.382	3.494	-7.230	6.466
5	IL	4	2	176	0.668	4.303	-7.767	9.102
5	IN	2	3	40	-4.042	1.828	-7.625	-0.460
5	IN	3	4	61	-2.976	4.203	-11.214	5.263
5	IN	4	4	64	-0.162	3.223	-6.479	6.155
5	MI	4	2	92	0.765	4.368	-7.796	9.327
6	OK	2	2	24	2.040	4.531	-6.841	10.920
6	OK	3	3	32	1.087	1.823	-2.485	4.659
6	OK	4	3	39	0.876	2.972	-4.949	6.701
6	TX	2	4	445	-2.646	3.847	-10.185	4.893
7	IA	1	3	29	1.007	3.008	-4.889	6.903
7	IA	2	3	33	-0.716	4.912	-10.343	8.911
7	IA	4	2	30	-3.290	4.985	-13.061	6.481
7	NB	1	2	25	-0.348	1.006	-2.320	1.624
7	NB	3	2	24	-0.459	1.186	-2.783	1.865
8	MT	2	2	32	0.696	4.672	-8.462	9.854
8	MT	4	3	57	1.473	5.802	-9.898	12.845
9	AZ	1	2	51	-0.490	2.212	-4.827	3.846
9	CA	2	3	323	2.527	6.732	-10.668	15.723
9	NV	1	3	50	4.735	4.240	-3.576	13.046

POLLUTANT = NO2

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	2	23	1.979	3.868	-5.602	9.561
3	MD	3	2	33	0.663	4.266	-7.699	9.025
3	PA	2	3	158	-1.329	5.884	-12.862	10.203
3	PA	3	2	153	-2.704	5.784	-14.041	8.633
3	PA	4	3	176	-1.544	6.494	-14.272	11.184
3	VA	1	2	56	-1.028	5.660	-12.122	10.067
3	VA	2	2	66	0.405	5.032	-9.457	10.268
3	VA	3	2	68	-0.687	5.668	-11.797	10.422
3	WV	1	2	33	2.100	8.057	-13.690	17.891
3	WV	3	2	36	-0.083	6.390	-12.606	12.441
3	WV	4	2	36	3.218	7.122	-10.741	17.177
4	FL	2	3	40	3.322	4.786	-6.059	12.703
4	FL	3	5	48	3.501	7.956	-12.093	19.094
4	FL	4	5	61	3.657	4.296	-4.764	12.078
4	KY	3	2	42	1.350	7.902	-14.137	16.838
4	KY	4	2	44	0.240	9.323	-18.034	18.513
5	IL	1	2	81	-2.270	4.065	-10.237	5.697
5	IL	2	2	108	-1.307	5.595	-12.272	9.659
5	IL	4	2	137	-0.247	5.426	-10.881	10.387

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

-- POLLUTANT = NO2 --

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IN	1	2	18	-2.298	4.151	-10.434	5.837
5	IN	3	2	19	-2.158	3.761	-9.529	5.214
5	IN	4	2	16	0.339	5.088	-9.632	10.311
5	OH	2	3	35	-0.987	5.700	-12.159	10.186
5	OH	3	3	38	2.290	5.768	-9.015	13.595
6	TX	1	2	157	-0.173	4.575	-9.141	8.795
7	MO	1	5	69	0.204	5.023	-9.641	10.050
7	MO	2	5	75	0.863	3.916	-6.812	8.538
7	MO	4	4	68	0.010	5.375	-10.526	10.546

-- POLLUTANT = O3 --

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	3	133	0.740	2.470	-4.101	5.582
3	MD	4	3	108	-0.311	2.883	-5.962	5.339
3	PA	1	3	196	-0.972	3.958	-8.730	6.787
3	PA	2	3	231	0.465	4.187	-7.741	8.671
3	PA	3	2	234	-0.081	3.929	-7.782	7.619
3	PA	4	3	209	-0.788	3.063	-6.791	5.216
3	VA	1	3	46	-0.464	5.089	-10.439	9.511
3	VA	2	3	147	-1.231	4.196	-9.455	6.993
3	VA	3	3	161	-1.286	2.477	-6.141	3.569
3	VA	4	3	96	-2.131	3.707	-9.397	5.134
3	WV	1	2	41	0.302	5.855	-11.174	11.778
3	WV	2	2	42	0.099	5.243	-10.177	10.376
3	WV	3	2	52	-0.781	3.844	-8.315	6.753
3	WV	4	2	47	0.168	4.699	-9.041	9.378
4	AL	2	3	55	-2.192	5.434	-12.842	8.459
4	AL	4	4	41	-5.158	5.267	-15.482	5.166
4	KY	2	2	99	-1.865	6.593	-14.788	11.057
4	KY	3	2	109	-0.478	6.820	-13.845	12.889
4	KY	4	2	48	2.471	6.547	-10.362	15.304
4	TN	1	2	10	0.511	3.684	-6.710	7.732
5	IL	1	2	296	-0.752	4.882	-10.320	8.817
5	IL	2	2	356	-1.522	4.912	-11.148	8.105
5	IL	3	2	368	-0.051	5.064	-9.976	9.875
5	IL	4	2	272	-1.518	4.948	-11.216	8.180
5	IN	2	5	82	0.096	4.619	-8.958	9.150
5	IN	3	6	134	-1.503	3.418	-8.203	5.197
5	MI	2	2	163	-1.787	3.752	-9.142	5.567
5	MI	4	2	57	-0.413	4.229	-8.703	7.876
6	NM	4	2	34	0.073	4.157	-8.074	8.220
6	OK	2	3	40	0.123	3.165	-6.079	6.326
6	OK	3	3	42	0.403	2.471	-4.439	5.245
6	TX	2	3	875	-0.763	4.293	-9.177	7.651
6	TX	3	3	948	-1.344	3.668	-8.534	5.845
6	TX	4	3	809	-1.319	4.656	-10.444	7.806
7	IA	2	3	33	-0.480	2.367	-5.118	4.159
7	IA	3	3	29	-0.439	2.946	-6.214	5.336
7	IA	4	3	30	-0.199	2.776	-5.641	5.243
7	NB	2	2	23	0.760	1.720	-2.612	4.131
7	NB	3	2	24	0.328	1.686	-2.976	3.632
7	NB	4	2	17	0.042	2.000	-3.878	3.963
9	AZ	2	2	42	-3.016	2.397	-7.714	1.682
9	AZ	3	2	41	-0.216	1.207	-2.581	2.149
9	AZ	4	2	39	-1.140	2.017	-5.093	2.814

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

--- POLLUTANT = PB ---

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	1	2	32	1.367	8.476	-15.245	17.979
3	PA	2	2	29	2.428	6.096	-9.520	14.377
4	AL	1	2	37	-3.321	16.008	-34.697	28.054
4	AL	2	2	40	-3.440	12.406	-27.755	20.875
4	AL	3	2	27	-5.891	15.897	-37.050	25.268
4	AL	4	2	30	2.582	19.555	-35.746	40.910
4	FL	1	2	35	0.221	6.479	-12.479	12.920
4	TN	1	2	18	0.890	5.232	-9.365	11.146
4	TN	2	2	19	-1.914	9.308	-20.158	16.329
4	TN	4	2	12	-3.810	12.581	-28.470	20.850
5	IL	1	2	8	-0.170	7.464	-14.800	14.460
6	TX	4	2	42	2.017	7.505	-12.693	16.727
7	MO	1	4	34	-6.942	21.006	-48.114	34.231
7	MO	2	4	26	4.796	21.623	-37.584	47.177
7	MO	3	5	38	3.787	20.159	-35.724	43.298
7	MO	4	5	53	8.394	17.500	-25.907	42.695

--- POLLUTANT = PM10 ---

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	2	5	25	-0.049	3.620	-7.144	7.046
1	ME	3	8	42	-3.030	7.281	-17.301	11.242
1	ME	4	2	24	-4.644	5.421	-15.268	5.980
3	PA	1	2	78	-1.335	8.610	-18.211	15.541
3	PA	2	2	87	-0.342	8.457	-16.917	16.232
3	PA	3	2	106	-0.985	8.543	-17.728	15.759
3	PA	4	2	71	3.801	9.742	-15.293	22.896
3	VA	1	2	24	3.681	6.459	-8.979	16.340
3	VA	3	2	33	3.776	5.500	-7.004	14.555
3	VA	4	2	18	-3.690	9.256	-21.832	14.452
4	AL	3	4	63	4.338	6.357	-8.123	16.798
4	AL	4	4	41	6.761	11.462	-15.704	29.227
4	FL	3	4	44	0.912	5.689	-10.239	12.063
4	KY	1	2	24	-2.763	6.877	-16.243	10.717
4	KY	4	2	31	8.325	8.974	-9.265	25.915
4	NC	2	2	57	1.421	7.458	-13.198	16.039
4	NC	3	2	58	0.877	6.469	-11.802	13.556
4	NC	4	3	45	0.532	7.013	-13.214	14.278
4	TN	2	3	57	3.050	10.110	-16.765	22.865
4	TN	4	4	99	-0.651	6.283	-12.967	11.665
5	IL	1	3	40	2.015	6.997	-11.700	15.729
5	IL	2	3	39	6.612	7.910	-8.891	22.116
5	IL	4	2	22	2.219	9.266	-15.942	20.381
5	IN	1	3	61	-0.298	5.615	-11.302	10.707
5	IN	2	4	68	-1.300	7.868	-16.722	14.122
5	IN	3	5	75	-0.478	5.353	-10.970	10.014
5	IN	4	5	62	3.367	6.903	-10.162	16.896
5	MI	1	2	22	2.237	9.408	-16.203	20.676
5	MI	2	2	18	1.050	8.508	-15.625	17.725
5	MI	3	2	34	0.244	10.828	-20.979	21.467
5	MI	4	2	20	-4.168	16.525	-36.557	28.220
5	OH	4	11	85	-0.339	8.135	-16.284	15.606
6	NM	1	2	17	-0.317	10.034	-19.983	19.349
6	NM	2	2	34	1.023	10.718	-19.984	22.030
6	NM	3	2	21	-1.141	7.950	-16.723	14.442
6	NM	4	2	23	-2.855	11.910	-26.198	20.489
6	OK	3	3	29	-3.022	10.598	-23.794	17.749
6	TX	4	4	28	-3.777	11.812	-26.929	19.375

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

POLLUTANT = PM10

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	IA	1	2	24	4.974	14.247	-22.950	32.899
7	IA	3	2	32	10.612	15.858	-20.470	41.694
7	IA	4	3	36	7.753	6.910	-5.791	21.297
7	MO	1	5	36	0.395	6.382	-12.113	12.904
7	MO	2	4	48	-2.094	6.482	-14.798	10.610
7	MO	4	3	22	-1.341	10.924	-22.751	20.069
7	NB	3	3	39	-0.676	12.530	-25.235	23.883
7	NB	4	3	29	0.771	6.368	-11.710	13.252
8	MT	1	2	63	-2.255	13.910	-29.518	25.009
8	MT	3	2	60	-1.660	11.011	-23.241	19.922
8	MT	4	2	73	-0.368	12.675	-25.212	24.475
9	CA	3	3	58	-2.938	6.788	-16.242	10.367
9	CA	4	2	25	-0.350	3.315	-6.848	6.147

POLLUTANT = SO2

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	2	6	128	-1.588	2.886	-7.245	4.069
1	ME	4	4	67	1.130	3.521	-5.771	8.031
3	MD	2	2	32	-1.324	2.730	-6.676	4.027
3	MD	4	2	43	0.067	3.449	-6.694	6.828
3	VA	1	3	71	-2.536	6.870	-16.001	10.930
3	VA	2	3	76	-3.206	4.148	-11.336	4.925
3	VA	4	3	78	-1.667	4.146	-9.793	6.458
3	WV	2	2	109	2.413	6.249	-9.836	14.661
3	WV	4	2	100	1.499	5.741	-9.754	12.752
4	KY	1	2	72	-2.497	5.564	-13.404	8.409
4	KY	2	2	72	-2.851	5.029	-12.707	7.006
4	KY	3	2	73	-2.821	6.911	-16.366	10.724
4	KY	4	2	72	-0.048	3.925	-7.741	7.646
4	NC	3	2	68	-1.757	2.871	-7.384	3.870
4	TN	1	3	33	-1.577	2.239	-5.966	2.812
4	TN	2	2	27	0.480	2.311	-4.050	5.010
4	TN	3	2	14	-2.298	6.146	-14.345	9.748
5	IL	4	2	256	0.924	5.458	-9.775	11.623
5	IN	2	4	56	-0.632	2.916	-6.347	5.082
5	IN	4	6	121	-0.333	4.561	-9.273	8.607
5	MI	3	2	122	0.804	4.892	-8.785	10.392
6	OK	2	2	40	-0.427	2.916	-6.143	5.289
6	OK	4	3	44	0.458	3.149	-5.713	6.629
6	TX	3	4	431	-2.516	3.105	-8.603	3.570
6	TX	4	4	411	-1.993	3.870	-9.579	5.592
7	IA	3	2	49	1.106	4.791	-8.285	10.497
7	IA	4	3	85	2.220	4.340	-6.287	10.727
7	MO	2	5	97	-0.906	4.643	-10.006	8.195

POLLUTANT = TSP

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	10	176	1.164	7.857	-14.236	16.564
1	ME	2	8	125	0.149	8.120	-15.767	16.064
1	ME	3	8	95	0.580	9.289	-17.627	18.788
1	ME	4	6	68	-3.065	9.835	-22.342	16.212
3	PA	1	2	72	3.947	6.378	-8.554	16.449
3	PA	2	2	63	3.753	5.813	-7.640	15.146

TABLE C-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY QUARTER

--- POLLUTANT = TSP ---

REGION	STATE	QUARTER	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	VA	2	3	79	-0.672	6.058	-12.546	11.201
3	WV	1	2	45	1.911	9.651	-17.004	20.827
3	WV	2	2	47	-3.035	8.812	-20.306	14.236
3	WV	3	2	59	1.484	5.481	-9.257	12.226
4	AL	3	4	100	-0.425	9.031	-18.125	17.276
4	AL	4	4	92	1.653	8.537	-15.080	18.385
4	FL	4	16	365	0.283	8.580	-16.533	17.099
4	KY	1	2	126	0.530	8.627	-16.379	17.438
4	KY	2	2	117	0.264	8.235	-15.876	16.404
4	NC	2	3	158	-0.123	5.290	-10.492	10.247
4	NC	3	3	145	0.639	4.806	-8.782	10.059
4	NC	4	2	125	-0.368	7.167	-14.415	13.678
4	TN	1	3	80	-0.556	3.274	-6.974	5.861
5	IL	4	2	48	-2.890	6.416	-15.465	9.686
5	MI	4	2	54	2.079	5.646	-8.986	13.145
5	OH	4	11	159	0.687	7.423	-13.861	15.236
6	OK	1	2	46	3.330	10.595	-17.436	24.096
6	OK	2	3	69	2.041	7.553	-12.763	16.846
6	OK	3	3	72	0.639	8.200	-15.433	16.712
6	OK	4	3	67	-3.564	9.109	-21.417	14.289
6	TX	3	5	89	-2.405	7.312	-16.737	11.927
7	IA	1	3	49	0.299	13.932	-27.008	27.606
7	IA	2	3	39	4.271	7.996	-11.400	19.942
7	IA	3	3	53	0.750	9.317	-17.511	19.011
7	IA	4	3	49	3.969	12.180	-19.905	27.843
7	MO	1	2	29	1.534	3.556	-5.437	8.504
7	MO	2	2	28	6.784	5.440	-3.879	17.446
7	NB	4	2	37	-3.107	10.984	-24.635	18.421
8	MT	2	4	68	-2.934	10.972	-24.440	18.572
8	MT	4	3	58	-1.753	9.117	-19.622	16.117
9	CA	1	4	186	-1.150	8.353	-17.522	15.221
9	CA	2	3	162	-1.460	8.006	-17.152	14.233
9	CA	3	3	164	-0.559	6.817	-13.921	12.803
9	CA	4	3	76	0.479	4.739	-8.809	9.766

TABLE C-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS AND QUARTERS

TABLE C-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS AND QUARTERS

POLLUTANT = CO

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	173	-0.115	2.550	-5.113	4.882
4	AL	2	123	0.343	5.604	-10.640	11.326
7	NB	2	94	-0.408	1.040	-2.447	1.631
9	NV	4	284	4.086	6.114	-7.898	16.070

POLLUTANT = NO2

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	VA	2	247	-0.518	5.536	-11.368	10.332
4	FL	5	187	3.463	6.767	-9.801	16.727
4	KY	2	163	0.134	8.851	-17.214	17.482
5	IN	2	59	-1.544	4.485	-10.335	7.247

POLLUTANT = O3

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	3	870	-0.306	3.878	-7.906	7.293
3	VA	3	450	-1.364	3.715	-8.646	5.917
3	WV	2	182	-0.089	5.142	-10.166	9.989
4	KY	2	264	-0.450	6.857	-13.890	12.990
5	IL	2	1292	-0.926	5.003	-10.730	8.879
5	IN	6	216	-0.896	3.936	-8.610	6.818
5	MI	2	384	-1.349	3.596	-8.398	5.699
6	NM	2	93	-0.447	5.995	-12.197	11.303
7	IA	3	126	-0.372	2.637	-5.540	4.796
7	NB	2	82	0.527	1.914	-3.224	4.277

POLLUTANT = PB

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	AL	2	134	-2.553	16.295	-34.491	29.385
4	TN	4	55	-1.438	8.771	-18.629	15.753
5	IL	3	37	-2.326	7.435	-16.899	12.247
6	TX	2	59	0.365	10.084	-19.399	20.129
9	CA	3	22	0.249	9.188	-17.759	18.257

POLLUTANT = PM10

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	2	342	0.092	8.989	-17.526	17.710
4	FL	6	105	0.203	7.368	-14.238	14.645
4	NC	3	173	0.894	7.000	-12.826	14.614
5	IL	3	155	3.529	10.658	-17.360	24.418
5	IN	5	266	0.249	6.815	-13.107	13.606
5	MI	2	94	-0.074	11.508	-22.630	22.482
6	NM	2	95	-0.634	10.214	-20.654	19.386
6	TX	4	29	-3.347	11.696	-26.272	19.578
8	MT	2	234	-1.247	11.858	-24.489	21.995

TABLE C-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS AND QUARTERS

-- POLLUTANT = SO2 --

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	166	-0.314	2.550	-5.313	4.684
4	KY	2	289	-2.057	5.573	-12.979	8.866
4	NC	2	257	-1.597	3.763	-8.972	5.778
4	TN	3	110	-1.011	3.424	-7.721	5.699
6	OK	3	149	-0.310	3.560	-7.287	6.667
7	IA	3	214	1.143	4.309	-7.302	9.588

-- POLLUTANT = TSP --

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	2	199	2.834	6.068	-9.060	14.728
3	WV	2	199	0.621	7.941	-14.943	16.185
4	KY	2	439	0.180	8.336	-16.158	16.518
9	CA	4	588	-0.860	7.488	-15.537	13.816

TABLE C-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY QUARTER

TABLE C-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY QUARTER

POLLUTANT = CO

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	3	8	446	-0.781	4.423	-9.450	7.888
5	1	6	556	-0.176	4.618	-9.226	8.875
6	1	4	449	-1.868	4.044	-9.794	6.058
7	1	4	157	1.338	5.657	-9.749	12.425

POLLUTANT = NO2

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	3	5	92	0.613	7.106	-13.314	14.541
2	1	2	86	2.640	5.856	-8.838	14.117
3	2	6	313	-0.460	5.505	-11.249	10.330
4	1	3	95	1.404	7.821	-13.925	16.732
4	3	5	129	1.670	7.341	-12.717	16.058
5	2	4	165	-1.674	5.714	-12.873	9.525
6	2	5	313	-0.781	5.432	-11.427	9.865
6	3	4	355	-0.100	4.342	-8.612	8.411

POLLUTANT = O3

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	3	32	-2.166	4.156	-10.313	5.980
2	3	2	187	-0.652	3.225	-6.973	5.668
3	4	6	481	-0.849	3.458	-7.628	5.929
5	1	4	337	-0.897	4.753	-10.213	8.418
5	4	5	441	-0.870	4.905	-10.483	8.744
8	2	3	120	1.541	4.672	-7.616	10.697
8	4	2	60	0.083	8.522	-16.621	16.787
10	2	2	49	1.846	4.936	-7.828	11.520
10	3	2	60	0.918	4.193	-7.300	9.136
10	4	2	16	-1.941	4.284	-10.337	6.456

POLLUTANT = PB

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	1	2	14	1.476	11.755	-21.564	24.516
3	1	2	47	2.070	7.537	-12.703	16.844
3	4	3	32	5.726	11.952	-17.699	29.151
4	2	2	60	-2.932	12.060	-26.570	20.707
5	1	3	16	-1.310	6.280	-13.618	10.999
5	2	3	18	-4.253	7.970	-19.874	11.369
5	3	3	16	-1.490	7.594	-16.374	13.394
6	1	3	21	-1.701	13.867	-28.879	25.477
6	2	4	29	-2.828	10.428	-23.267	17.612
6	3	3	21	-1.457	24.941	-50.341	47.426
8	1	2	33	-2.325	15.683	-33.064	28.414

TABLE C-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY QUARTER

POLLUTANT = PM10

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	3	5	101	0.711	6.891	-12.796	14.217
3	4	5	113	2.417	9.409	-16.025	20.858
4	2	7	257	1.564	8.700	-15.489	18.616
5	1	5	216	-0.559	8.401	-17.024	15.907
5	2	5	254	0.185	8.792	-17.047	17.417
6	1	2	21	0.370	9.290	-17.838	18.578
6	2	2	37	1.878	10.504	-18.709	22.465
6	3	2	50	-1.923	10.514	-22.530	18.683
6	4	3	72	-2.724	12.098	-26.437	20.989
7	1	4	97	3.764	11.282	-18.349	25.878
7	4	4	97	3.072	8.226	-13.050	19.194
8	1	5	105	1.604	12.657	-23.205	26.412
8	2	5	98	1.638	8.107	-14.252	17.529
9	1	3	40	-0.908	8.290	-17.157	15.340
9	2	4	52	2.928	13.220	-22.983	28.840
9	3	3	89	-2.373	6.881	-15.860	11.114
9	4	2	38	3.091	3.750	-4.259	10.441
10	2	4	94	-0.071	7.790	-15.339	15.197
10	3	2	56	0.256	5.221	-9.976	10.488
10	4	3	87	1.171	5.596	-9.797	12.138

POLLUTANT = SO2

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	6	629	-0.358	5.297	-10.740	10.025
1	4	6	481	0.463	5.262	-9.850	10.775
4	4	7	1035	-1.939	4.757	-11.263	7.384
5	3	6	822	0.156	5.589	-10.797	11.110
6	4	4	508	-1.788	4.285	-10.188	6.611
7	1	4	161	-1.031	4.557	-9.963	7.901
7	2	4	146	-0.574	4.713	-9.812	8.664
7	3	4	162	-0.176	4.671	-9.331	8.978
7	4	4	176	0.576	4.797	-8.826	9.979
8	1	4	121	-0.987	3.263	-7.382	5.407
10	1	2	90	-0.607	3.453	-7.375	6.160
10	3	2	93	1.099	4.463	-7.647	9.846

POLLUTANT = TSP

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	5	297	0.857	9.163	-17.103	18.817
1	2	5	234	-0.211	8.012	-15.915	15.493
2	1	3	164	0.381	7.938	-15.178	15.941
2	4	2	102	2.134	6.734	-11.064	15.333
3	2	5	307	0.967	7.411	-13.558	15.493
3	3	5	316	0.226	6.444	-12.405	12.857
3	4	5	238	-0.592	7.472	-15.236	14.053
4	4	6	750	0.507	8.283	-15.728	16.741
5	2	6	659	0.821	8.063	-14.982	16.624
5	4	6	346	0.474	7.828	-14.868	15.817
6	3	5	263	-0.942	7.860	-16.348	14.463
6	4	4	205	-2.435	10.348	-22.717	17.846
7	1	4	166	1.114	11.476	-21.379	23.608
7	2	4	159	2.326	9.978	-17.231	21.883
7	4	3	123	-0.184	12.292	-24.277	23.908

TABLE C-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY QUARTER

-- POLLUTANT = TSP --

REGION	QUARTER	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
8	1	6	142	0.020	11.848	-23.203	23.242
8	2	6	161	-2.167	11.464	-24.637	20.303
8	4	6	160	-2.369	8.086	-18.218	13.479
9	1	3	232	-0.966	8.003	-16.652	14.720
9	2	3	211	-2.025	7.824	-17.360	13.310
9	3	3	199	-0.660	6.927	-14.236	12.916
10	1	3	103	1.496	9.640	-17.399	20.391
10	2	3	117	0.201	8.369	-16.201	16.604
10	3	2	76	0.620	8.005	-15.069	16.309
10	4	3	76	1.505	8.326	-14.814	17.823

TABLE C-6. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS

TABLE C-6. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS

POLLUTANT = CO

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	4	2041	-1.958	4.344	-10.472	6.556

POLLUTANT = O3

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
10	2	125	0.916	4.587	-8.074	9.906

POLLUTANT = PB

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	2	47	4.134	8.428	-12.385	20.654
3	5	180	1.588	9.043	-16.136	19.312
8	2	108	-2.510	19.497	-40.724	35.704

POLLUTANT = PM10

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	4	182	-1.203	10.976	-22.715	20.310

POLLUTANT = SO2

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	4	645	-0.274	4.719	-9.523	8.975
10	3	360	0.213	3.916	-7.462	7.889

POLLUTANT = TSP

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	4	614	0.697	10.850	-20.569	21.963
9	3	718	-1.039	7.445	-15.631	13.552
10	3	372	0.912	8.752	-16.243	18.066

APPENDIX D

PROBABILITY LIMITS FOR PARS ACCURACY DATA

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

--- POLLUTANT = CO ---

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	RI	1	1	2	16	3.200	2.399	-1.502	7.902
1	RI	1	2	2	16	0.993	1.244	-1.444	3.431
2	NJ	1	1	10	21	-2.722	4.009	-10.580	5.135
2	NY	1	1	15	68	0.198	3.254	-6.180	6.577
2	NY	1	2	15	68	-0.360	2.359	-4.983	4.263
2	NY	1	3	15	68	-0.150	2.310	-4.677	4.377
3	MD	1	2	6	24	2.763	1.458	-0.094	5.621
3	PA	1	1	9	21	-1.126	4.366	-9.684	7.433
3	PA	1	2	9	21	-0.583	2.328	-5.147	3.980
3	PA	2	1	4	16	-0.405	2.089	-4.499	3.690
3	PA	2	2	4	16	0.288	1.952	-3.538	4.113
3	PA	2	3	4	16	0.479	0.957	-1.397	2.356
3	VA	3	1	4	9	-2.093	2.160	-6.327	2.140
3	VA	3	2	4	10	-1.592	2.424	-6.342	3.159
3	VA	3	3	3	7	-0.914	1.983	-4.800	2.972
3	WV	1	1	2	8	3.396	7.071	-10.463	17.254
3	WV	1	2	2	8	0.440	4.201	-7.793	8.673
3	WV	1	3	2	6	0.133	2.838	-5.430	5.696
3	WV	2	1	2	8	-12.910	9.848	-32.213	6.392
3	WV	2	2	2	8	-10.993	7.870	-26.418	4.431
3	WV	2	3	2	6	-8.612	6.441	-21.237	4.013
4	AL	12	1	9	27	3.177	8.823	-14.116	20.471
4	AL	12	2	9	27	1.995	6.072	-9.906	13.896
4	FL	13	1	3	20	4.191	4.782	-5.181	13.564
4	FL	13	2	3	20	0.789	2.177	-3.478	5.057
4	KY	1	1	7	20	2.223	3.745	-5.116	9.563
4	KY	2	1	2	5	-0.477	3.781	-7.888	6.934
4	NC	1	1	4	14	-1.520	2.809	-7.025	3.985
4	NC	1	2	4	14	-0.761	1.937	-4.557	3.035
4	NC	1	3	3	9	0.078	1.544	-2.949	3.105
4	NC	2	1	2	6	4.368	3.091	-1.690	10.426
4	NC	2	2	2	6	1.690	2.184	-2.592	5.971
4	NC	3	1	4	20	-3.433	4.281	-11.824	4.958
4	NC	3	2	4	20	0.382	3.871	-7.205	7.968
4	NC	3	3	4	22	0.248	1.710	-3.103	3.600
4	SC	1	1	2	31	-3.025	8.771	-20.217	14.167
4	SC	1	2	2	28	-0.714	3.056	-6.703	5.276
4	SC	1	3	2	38	-0.354	2.868	-5.977	5.268
4	TN	2	1	9	33	-0.128	3.501	-6.990	6.734
4	TN	2	2	10	35	-1.147	2.663	-6.366	4.071
4	TN	2	3	10	27	-2.776	2.771	-8.207	2.654
4	TN	3	1	5	17	1.435	1.939	-2.367	5.236
4	TN	3	2	5	17	-0.607	1.814	-4.164	2.949
4	TN	3	3	5	15	-1.041	2.921	-6.766	4.684
5	IL	3	1	4	10	-7.555	8.759	-24.723	9.613
5	IL	3	2	4	10	-1.314	2.352	-5.925	3.296
5	IL	3	3	3	8	0.116	0.741	-1.336	1.567
5	IN	1	1	4	29	-3.123	5.840	-14.570	8.323
5	IN	1	2	4	29	2.054	3.096	-4.014	8.121
5	IN	1	3	4	19	1.438	2.241	-2.955	5.831
5	IN	2	1	2	8	-2.781	6.499	-15.518	9.957
5	IN	2	2	2	8	0.015	3.257	-6.368	6.398
5	IN	8	1	3	12	-4.762	3.355	-11.338	1.814
5	IN	8	2	3	12	-0.323	1.981	-4.205	3.559
5	IN	8	3	3	9	1.197	0.553	0.113	2.281
5	IN	100	1	2	18	-3.983	5.214	-14.203	6.238
5	IN	100	2	2	18	3.085	2.667	-2.143	8.314
5	IN	100	3	2	13	4.337	2.239	-0.051	8.724
5	MI	1	1	2	5	-2.066	1.016	-4.057	-0.076
5	MI	1	2	2	5	-1.994	1.608	-5.146	1.157
5	MI	1	3	2	5	-1.535	2.484	-6.403	3.334

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	MN	1	1	5	12	1.090	8.527	-15.622	17.802
5	MN	1	2	4	9	0.125	4.580	-8.851	9.101
5	OH	9	1	2	5	-11.544	8.717	-28.629	5.540
5	OH	9	2	2	5	-6.296	4.414	-14.947	2.355
5	OH	9	3	2	5	-4.142	4.239	-12.451	4.167
6	LA	1	1	3	8	-1.631	5.014	-11.458	8.196
6	LA	1	2	2	5	1.594	2.958	-4.203	7.391
6	LA	1	3	2	5	-0.305	3.632	-7.424	6.815
6	NM	1	1	4	15	0.919	4.145	-7.205	9.044
6	NM	1	3	4	11	0.550	2.095	-3.556	4.656
6	NM	2	2	4	10	-0.041	2.052	-4.062	3.981
6	NM	2	3	5	12	-0.060	2.100	-4.175	4.055
6	OK	103	1	2	7	-1.139	3.901	-8.785	6.508
6	OK	103	2	2	7	-1.509	1.410	-4.273	1.254
6	OK	103	3	2	7	1.008	1.104	-1.156	3.171
6	TX	2	1	3	16	1.331	4.923	-8.318	10.979
6	TX	2	2	3	16	-0.423	5.397	-11.001	10.154
6	TX	2	3	3	16	-1.698	3.456	-8.472	5.075
7	IA	1	2	2	5	-2.971	1.697	-6.297	0.356
7	IA	1	3	3	8	-0.094	2.539	-5.070	4.882
7	KC	1	1	2	6	4.728	9.363	-13.624	23.081
7	KC	1	2	2	6	2.412	6.039	-9.424	14.249
7	KC	1	3	2	6	2.301	6.519	-10.477	15.079
8	CO	1	4	3	7	1.966	0.137	1.697	2.234
8	UT	1	1	7	25	-0.512	2.877	-6.151	5.127
8	UT	1	3	5	15	1.404	1.988	-2.492	5.300
9	CA	4	3	11	23	0.324	1.362	-2.346	2.994
10	ID	1	3	2	6	-0.169	4.361	-8.715	8.378
10	OR	1	1	3	20	11.003	14.206	-16.841	38.846

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	RI	1	1	3	8	-1.187	6.178	-13.297	10.923
1	VT	1	1	2	7	1.356	3.960	-6.406	9.119
1	VT	1	2	2	7	0.067	2.386	-4.608	4.743
2	NY	1	2	7	95	1.091	3.248	-5.276	7.458
2	NY	1	3	7	95	0.638	2.453	-4.170	5.447
3	MD	1	1	2	6	-1.491	5.856	-12.968	9.986
3	MD	1	2	2	6	-8.312	4.470	-17.073	0.449
3	PA	1	1	4	9	2.929	7.089	-10.965	16.824
3	PA	1	2	4	10	2.419	7.717	-12.706	17.544
3	PA	2	1	3	12	3.912	7.334	-10.463	18.287
3	PA	2	2	3	12	-0.013	6.454	-12.664	12.637
3	PA	2	3	3	12	-0.574	4.149	-8.706	7.559
3	VA	1	1	2	5	-0.293	2.826	-5.832	5.246
3	VA	1	2	2	5	1.287	1.782	-2.205	4.779
3	VA	1	3	3	8	0.134	2.941	-5.629	5.898
3	WV	1	1	3	12	4.394	12.584	-20.271	29.059
3	WV	1	2	3	12	2.783	6.583	-10.119	15.685
3	WV	1	3	3	9	3.308	5.102	-6.691	13.308
3	WV	2	1	2	5	12.666	10.000	-6.934	32.267
3	WV	2	2	2	5	5.791	2.883	0.141	11.442
4	FL	12	1	2	5	6.914	4.933	-2.755	16.583
4	FL	12	2	2	5	3.944	6.970	-9.718	17.605
4	FL	13	2	2	5	3.396	8.968	-14.180	20.972
4	FL	13	3	2	5	3.093	10.313	-17.121	23.306
4	KY	1	1	7	18	3.166	15.221	-26.668	32.999

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

-- POLLUTANT = NO2 --

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	KY	1	2	7	17	3.097	10.985	-18.434	24.628
4	NC	2	1	2	6	-6.817	6.377	-19.315	5.682
4	NC	2	2	2	6	-3.213	4.431	-11.898	5.472
5	IL	3	1	4	12	-1.770	7.864	-17.183	13.643
5	IL	3	2	4	12	-0.426	6.684	-13.527	12.675
5	IL	3	3	4	12	0.012	5.023	-9.833	9.858
5	IN	1	1	2	8	-2.796	6.401	-15.342	9.751
5	IN	1	2	2	8	-3.294	4.549	-12.210	5.622
5	IN	1	3	2	6	-2.377	5.240	-12.647	7.893
5	WI	1	1	2	5	-15.775	8.155	-31.759	0.209
5	WI	1	2	2	5	-7.665	3.692	-14.901	-0.428
5	WI	1	3	2	5	-4.918	2.015	-8.867	-0.970
6	NM	1	1	2	5	6.131	6.698	-6.997	19.259
6	NM	1	2	2	5	5.702	4.901	-3.904	15.307
6	OK	103	2	2	6	-0.624	5.572	-11.546	10.298
6	OK	103	3	2	6	-2.219	5.477	-12.955	8.516
6	TX	2	1	2	9	-0.195	6.193	-12.333	11.943
6	TX	2	2	2	9	-0.993	5.088	-10.965	8.978
6	TX	2	3	2	9	-0.098	6.303	-12.451	12.255
8	CO	1	3	2	6	-4.871	2.574	-9.917	0.175
8	UT	1	1	3	11	-0.450	8.481	-17.072	16.173
8	UT	1	2	3	10	-2.414	4.782	-11.787	6.960
8	UT	1	3	3	8	-1.522	3.159	-7.714	4.670

-- POLLUTANT = O3 --

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	RI	1	1	2	8	0.554	3.324	-5.961	7.070
1	RI	1	2	2	8	2.116	2.345	-2.481	6.713
1	RI	1	3	2	8	0.775	2.918	-4.945	6.495
1	VT	1	2	2	5	-1.849	0.880	-3.573	-0.124
2	NJ	1	2	10	27	0.429	6.930	-13.153	14.011
2	NJ	1	3	11	29	-1.638	5.490	-12.399	9.123
2	NY	1	1	19	106	0.470	3.882	-7.138	8.079
2	NY	1	2	19	106	-0.267	3.352	-6.837	6.302
2	NY	1	3	19	106	-0.123	3.470	-6.925	6.678
3	DE	1	2	3	8	-1.667	6.901	-15.192	11.859
3	MD	1	1	9	32	1.212	4.099	-6.821	9.245
3	MD	1	2	9	33	1.297	3.786	-6.124	8.719
3	MD	5	1	4	14	-0.542	3.882	-8.150	7.067
3	MD	5	2	4	14	0.201	3.083	-5.840	6.243
3	PA	1	1	8	19	-0.109	5.103	-10.111	9.894
3	PA	1	3	3	7	-0.526	2.408	-5.246	4.194
3	PA	2	1	4	17	-0.399	3.760	-7.769	6.971
3	PA	2	2	4	17	0.367	3.307	-6.114	6.848
3	PA	2	3	4	17	0.874	3.429	-5.847	7.595
3	VA	1	1	2	5	0.475	4.632	-8.603	9.553
3	VA	1	2	3	7	0.192	2.571	-4.848	5.231
3	VA	815	2	2	5	1.387	1.080	-0.729	3.503
3	WV	1	1	4	14	-1.743	6.195	-13.885	10.399
3	WV	1	2	4	14	-0.076	3.446	-6.830	6.678
3	WV	1	3	4	10	-0.712	2.934	-6.462	5.039
3	WV	2	1	2	8	-2.651	7.330	-17.018	11.716
3	WV	2	2	2	8	-1.799	1.574	-4.885	1.287
3	WV	2	3	2	6	-2.536	1.318	-5.119	0.046
4	AL	11	1	4	12	9.795	10.833	-11.438	31.028
4	AL	11	2	4	12	3.604	4.798	-5.800	13.008
4	AL	14	1	2	5	1.483	3.645	-5.661	8.626

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

-- POLLUTANT = O3 --

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	AL	14	2	2	5	-0.213	3.501	-7.074	6.649
4	FL	11	1	2	7	-3.082	8.172	-19.099	12.935
4	FL	11	2	2	7	-2.802	5.284	-13.158	7.554
4	FL	11	3	2	7	-3.105	5.606	-14.093	7.884
4	FL	13	1	3	15	0.461	3.112	-5.639	6.561
4	FL	13	2	3	15	0.267	4.128	-7.824	8.357
4	FL	13	3	3	14	-0.630	3.705	-7.891	6.631
4	FL	17	1	3	7	1.162	3.732	-6.153	8.477
4	FL	17	2	3	7	-0.857	3.609	-7.932	6.217
4	FL	17	3	3	7	-1.597	4.095	-9.622	6.429
4	FL	18	1	3	7	-0.170	2.260	-4.601	4.261
4	FL	18	2	3	7	0.783	2.471	-4.060	5.627
4	FL	18	3	3	7	1.374	3.018	-4.542	7.289
4	KY	1	1	15	35	-0.903	11.030	-22.523	20.716
4	KY	1	2	15	32	-0.882	10.080	-20.638	18.875
4	KY	2	1	2	5	-3.314	3.624	-10.418	3.790
4	KY	2	2	2	5	-3.413	5.803	-14.786	7.961
4	MS	100	1	4	16	-4.665	2.861	-10.273	0.942
4	MS	100	2	4	16	-3.726	1.963	-7.573	0.121
4	MS	100	3	4	16	-3.228	1.618	-6.399	-0.057
4	NC	2	1	3	9	-1.959	3.832	-9.470	5.551
4	NC	2	2	3	9	-0.729	2.189	-5.021	3.562
4	NC	3	1	3	17	1.153	3.844	-6.383	8.688
4	NC	3	2	3	17	0.445	3.698	-6.803	7.693
4	NC	3	3	3	17	-0.033	3.462	-6.819	6.754
4	TN	1	1	7	19	-0.377	5.962	-12.063	11.308
4	TN	1	2	7	19	-0.686	4.793	-10.079	8.708
4	TN	1	3	7	19	0.223	5.014	-9.605	10.050
4	TN	2	1	2	8	-0.724	2.441	-5.509	4.060
4	TN	2	2	2	7	-0.961	3.793	-8.395	6.474
4	TN	3	1	3	11	2.432	4.834	-7.044	11.907
4	TN	3	2	3	11	0.904	5.330	-9.544	11.351
4	TN	3	3	3	8	-0.399	6.719	-13.569	12.771
4	TN	4	1	2	10	-0.066	6.216	-12.249	12.117
4	TN	4	2	2	10	0.217	3.891	-7.410	7.845
4	TN	4	3	2	6	-0.522	2.270	-4.972	3.928
4	TN	5	1	4	16	-2.162	4.392	-10.770	6.446
4	TN	5	3	4	12	-2.328	1.611	-5.487	0.830
5	IL	3	1	8	22	-2.063	3.704	-9.322	5.196
5	IL	3	2	8	20	-0.743	3.850	-8.289	6.802
5	IL	3	3	8	21	-1.390	3.440	-8.133	5.352
5	IN	1	1	8	31	-2.493	5.135	-12.558	7.573
5	IN	1	2	8	31	-0.783	4.023	-8.669	7.103
5	IN	100	1	3	19	-3.160	5.803	-14.533	8.213
5	MN	1	1	3	7	3.069	19.542	-35.234	41.371
5	MN	1	2	3	7	2.132	8.717	-14.954	19.217
6	AR	1	1	2	7	-0.389	7.483	-15.056	14.278
6	AR	1	2	2	7	-1.751	5.906	-13.326	9.824
6	AR	1	3	2	7	-1.455	5.831	-12.883	9.973
6	LA	1	1	11	31	-5.726	5.237	-15.989	4.538
6	NM	1	1	4	13	-1.612	8.722	-18.707	15.484
6	NM	1	2	4	13	-1.876	4.972	-11.622	7.869
6	NM	2	1	5	12	1.068	4.186	-7.137	9.274
6	NM	2	3	5	12	-0.495	2.551	-5.495	4.506
6	OK	101	3	2	6	-0.212	2.031	-4.192	3.768
6	OK	103	1	3	10	-1.902	3.465	-8.694	4.890
6	OK	103	2	3	10	0.223	1.909	-3.518	3.964
6	OK	103	3	3	10	1.190	2.177	-3.077	5.456
6	TX	2	1	3	12	-2.333	3.824	-9.828	5.162
6	TX	2	2	3	12	0.544	3.767	-6.840	7.927
6	TX	2	3	3	12	2.407	5.477	-8.328	13.142

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	TX	6	1	6	24	-7.708	3.809	-15.173	-0.243
6	TX	6	2	6	24	-4.557	3.866	-12.135	3.020
6	TX	6	3	6	24	-1.946	3.894	-9.579	5.687
7	IA	1	2	2	5	-0.106	3.279	-6.532	6.320
7	IA	1	3	2	5	-0.073	2.134	-4.256	4.109
7	IA	2	1	3	24	2.274	2.846	-3.304	7.852
7	IA	2	2	3	24	1.425	2.176	-2.839	5.689
7	IA	2	3	3	24	0.906	2.311	-3.624	5.437
8	UT	1	1	4	11	-1.976	3.758	-9.342	5.390
8	UT	1	2	4	11	-2.367	3.340	-8.913	4.178
10	OR	1	1	2	6	3.307	7.636	-11.659	18.272
10	OR	1	2	2	6	-3.837	4.616	-12.885	5.211
10	OR	1	3	2	6	-5.334	4.003	-13.181	2.513

POLLUTANT = PB

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	DE	1	1	2	6	-2.728	9.103	-20.570	15.115
3	PA	3	1	2	39	1.577	4.100	-6.458	9.613
3	PA	3	2	2	38	1.800	3.868	-5.782	9.382
3	VA	1	1	3	25	-2.401	10.377	-22.740	17.939
3	VA	1	2	3	25	-6.489	9.801	-25.699	12.720
3	VA	3	1	2	24	0.736	2.578	-4.317	5.789
4	FL	12	1	2	18	-0.691	2.320	-5.237	3.855
4	FL	12	2	2	20	-1.267	2.069	-5.323	2.789
4	FL	13	1	2	13	0.651	1.976	-3.222	4.523
4	FL	18	1	2	10	-7.679	10.037	-27.352	11.994
4	FL	18	2	2	11	-7.134	7.290	-21.422	7.155
4	GA	10	1	2	12	-1.554	3.701	-8.808	5.700
5	MI	2	1	3	8	-1.937	5.415	-12.551	8.676
5	MI	2	2	3	8	-0.172	1.520	-3.151	2.807
6	OK	102	1	2	7	6.071	1.236	3.649	8.493
6	OK	102	2	2	7	-0.737	1.737	-4.141	2.668
6	TX	3	1	2	9	0.370	3.081	-5.669	6.410
6	TX	3	2	2	9	0.767	4.074	-7.219	8.752
7	MO	2	1	3	13	0.526	2.200	-3.786	4.839
7	MO	2	2	3	13	0.244	0.999	-1.714	2.203
7	MO	6	1	2	31	1.621	4.229	-6.667	9.910
7	MO	6	2	2	31	0.244	3.229	-6.086	6.573
10	OR	1	1	2	11	2.832	2.832	-2.719	8.383
10	OR	1	2	2	11	4.377	2.137	0.187	8.566

POLLUTANT = PB_FLOW

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	NY	1	2	3	9	1.309	1.823	-2.264	4.882
3	MD	1	2	4	11	1.258	3.282	-5.174	7.690
9	HI	120	2	2	7	0.440	3.965	-7.330	8.211

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

--- POLLUTANT = PM10 ---

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	MA	1	2	5	19	-2.160	5.488	-12.916	8.595
1	ME	1	2	7	41	3.250	2.616	-1.877	8.376
1	ME	102	2	2	5	2.377	1.965	-1.474	6.229
1	ME	104	2	2	6	4.422	0.880	2.697	6.146
1	ME	106	2	2	10	1.855	2.478	-3.003	6.713
1	ME	108	2	2	9	3.000	2.865	-2.616	8.616
1	ME	110	2	2	5	2.996	3.822	-4.496	10.487
1	NH	1	2	2	8	0.612	3.066	-5.397	6.621
1	VT	1	2	4	15	2.127	2.657	-3.080	7.335
3	MD	1	2	3	31	1.987	3.366	-4.610	8.584
3	PA	1	2	19	57	1.604	2.838	-3.958	7.166
3	PA	2	2	9	34	-1.314	2.653	-6.513	3.886
3	VA	1	2	6	17	-2.613	1.155	-4.877	-0.348
3	VA	3	2	2	5	-2.967	2.471	-7.811	1.876
3	WV	2	2	3	9	0.353	3.937	-7.364	8.070
4	FL	18	2	2	10	-0.234	5.902	-11.803	11.334
4	KY	1	2	4	12	1.459	2.789	-4.008	6.927
4	SC	1	2	8	53	0.017	2.830	-5.531	5.564
4	TN	1	2	8	40	-1.661	3.112	-7.761	4.438
4	TN	4	2	2	9	-0.585	4.433	-9.275	8.104
5	IL	1	2	4	13	1.020	3.370	-5.584	7.625
5	IN	100	2	5	18	0.035	1.451	-2.808	2.879
5	MI	2	2	3	10	-0.280	2.023	-4.245	3.685
5	OH	6	2	2	6	1.602	2.994	-4.265	7.470
5	OH	7	2	2	8	3.589	1.678	0.300	6.877
5	OH	14	2	6	23	-2.192	3.908	-9.852	5.468
5	WI	1	2	6	23	-0.898	2.740	-6.268	4.473
6	AR	1	2	4	11	-0.452	3.789	-7.878	6.975
6	NM	2	2	4	11	-3.656	6.534	-16.462	9.150
6	TX	1	2	9	27	1.259	4.274	-7.118	9.635
7	IA	1	2	3	7	-0.426	4.568	-9.380	8.527
7	KC	1	2	4	9	-0.713	3.822	-8.204	6.778
7	MO	1	2	2	5	-0.391	6.444	-13.021	12.240
7	NB	2	2	2	7	0.113	1.544	-2.913	3.138
8	CO	1	2	9	23	0.952	2.448	-3.845	5.749
8	MT	4	2	2	16	-0.304	5.231	-10.556	9.948
8	UT	1	2	10	37	-1.524	2.866	-7.141	4.093
9	AZ	13	2	4	14	2.904	3.094	-3.159	8.968

--- POLLUTANT = SO2 ---

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	1	3	7	-0.288	9.614	-19.131	18.554
1	ME	1	2	3	7	-0.626	5.339	-11.091	9.839
1	ME	104	1	4	12	5.306	7.479	-9.353	19.964
1	ME	104	2	4	11	4.745	6.380	-7.760	17.251
1	ME	110	1	2	5	1.747	4.652	-7.372	10.865
1	NH	1	1	7	22	-2.204	6.970	-15.865	11.457
1	NH	1	2	8	25	-2.915	4.952	-12.622	6.791
1	RI	1	1	3	18	1.466	7.406	-13.049	15.982
1	RI	1	2	3	18	1.130	4.373	-7.442	9.702
1	RI	1	3	3	11	-1.158	4.816	-10.598	8.282
1	VT	1	1	2	7	2.033	3.113	-4.068	8.134
1	VT	1	2	2	7	-0.749	3.714	-8.029	6.532
1	VT	1	3	2	5	-1.148	3.322	-7.659	5.362
2	NY	1	1	25	119	-0.246	4.492	-9.051	8.558
2	NY	1	3	25	119	-1.060	4.227	-9.346	7.226
2	PR	2	1	2	6	-0.726	6.383	-13.237	11.785

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

-- POLLUTANT = SO2 --

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	PR	2	2	2	7	-2.440	5.236	-12.701	7.822
2	PR	2	3	2	8	-1.531	5.885	-13.066	10.004
2	PR	2	4	2	8	-0.239	6.062	-12.121	11.642
3	MD	1	1	4	12	1.166	5.757	-10.117	12.448
3	MD	1	2	4	12	0.544	4.491	-8.258	9.346
3	PA	1	1	7	16	-1.320	5.186	-11.486	8.845
3	PA	1	2	7	16	-1.543	4.144	-9.666	6.579
3	PA	2	1	10	50	-0.395	4.594	-9.400	8.609
3	PA	2	2	10	50	1.033	4.715	-8.209	10.274
3	PA	2	3	10	50	1.829	5.637	-9.221	12.878
3	PA	2	4	5	15	0.946	3.930	-6.758	8.649
3	VA	3	1	3	9	2.078	8.398	-14.382	18.537
3	VA	3	2	3	9	1.610	6.484	-11.099	14.320
3	VA	3	3	3	8	2.532	6.495	-10.198	15.261
3	WV	1	1	6	23	0.349	6.642	-12.669	13.367
3	WV	1	2	6	23	1.177	4.738	-8.110	10.465
3	WV	1	3	6	17	1.011	3.302	-5.460	7.483
3	WV	2	1	6	24	-2.201	6.797	-15.522	11.121
3	WV	2	2	6	24	0.517	3.144	-5.646	6.679
3	WV	2	3	6	18	0.195	2.569	-4.840	5.230
4	FL	13	1	4	19	-0.113	4.047	-8.045	7.820
4	FL	13	2	4	18	1.772	3.025	-4.157	7.702
4	FL	13	3	4	15	1.942	2.829	-3.603	7.486
4	KY	1	1	9	26	0.403	5.334	-10.051	10.858
4	KY	1	2	9	24	-2.835	5.415	-13.449	7.779
4	KY	2	2	2	6	-1.139	5.280	-11.489	9.211
4	MS	100	1	2	7	-2.635	4.085	-10.642	5.371
4	MS	100	2	2	7	-3.353	2.019	-7.309	0.604
4	MS	100	3	2	7	-3.439	1.484	-6.348	-0.531
4	NC	2	1	2	6	-2.304	10.006	-21.916	17.308
4	NC	2	2	2	6	-1.588	2.602	-6.689	3.512
4	SC	1	1	3	36	-0.708	7.761	-15.920	14.503
4	SC	1	2	3	37	0.341	5.719	-10.868	11.550
4	TN	1	1	5	12	-0.428	6.704	-13.568	12.712
4	TN	1	2	5	12	-0.432	5.546	-11.302	10.438
4	TN	1	3	3	7	-0.050	4.830	-9.516	9.416
4	TN	3	1	2	8	1.775	3.301	-4.694	8.244
4	TN	3	2	2	8	0.117	6.053	-11.747	11.981
4	TN	3	3	2	6	1.068	2.307	-3.454	5.590
5	IL	3	1	5	16	2.590	11.070	-19.108	24.288
5	IL	3	2	5	16	-1.251	5.365	-11.767	9.265
5	IL	3	3	5	16	-3.143	4.427	-11.819	5.533
5	IN	1	1	9	57	2.366	7.038	-11.428	16.160
5	IN	1	2	9	57	1.644	6.034	-10.182	13.470
5	IN	8	1	3	11	0.311	3.738	-7.015	7.637
5	IN	8	2	3	11	1.435	4.501	-7.387	10.256
5	IN	8	3	3	9	0.654	5.198	-9.534	10.843
5	IN	100	1	4	61	1.434	5.558	-9.459	12.328
5	IN	100	2	4	61	1.042	4.893	-8.549	10.633
5	IN	100	3	4	45	-0.364	5.347	-10.845	10.117
5	MN	1	2	4	9	-2.127	2.130	-6.301	2.047
5	OH	6	1	2	5	-3.378	4.856	-12.896	6.139
5	OH	6	2	2	5	-4.158	4.922	-13.804	5.489
5	OH	6	3	2	5	-5.800	4.609	-14.835	3.234
5	OH	9	1	3	7	-4.021	6.639	-17.034	8.991
5	OH	9	2	4	9	-4.373	6.340	-16.799	8.053
5	OH	9	3	4	9	-4.873	5.509	-15.671	5.925
6	AR	1	1	2	8	-4.540	5.832	-15.970	6.890
6	LA	1	1	4	10	-0.404	6.298	-12.747	11.940
6	LA	1	2	2	5	-2.392	9.669	-21.344	16.560
6	LA	1	3	2	5	-3.378	8.998	-21.014	14.258

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	NM	1	1	9	30	0.735	7.368	-13.707	15.177
6	NM	1	2	9	30	1.917	4.491	-6.884	10.719
6	NM	1	3	7	20	2.323	4.152	-5.814	10.460
6	OK	103	1	2	6	-1.014	3.005	-6.904	4.877
6	OK	103	2	2	6	0.199	2.447	-4.596	4.995
6	OK	103	3	2	6	0.079	2.832	-5.472	5.630
7	IA	2	2	5	18	4.518	1.665	1.254	7.781
7	IA	2	3	5	19	1.870	3.125	-4.256	7.996
8	CO	1	1	2	6	12.008	23.468	-33.990	58.005
8	CO	1	2	2	6	12.235	20.430	-27.809	52.279
8	CO	1	3	2	6	10.676	13.451	-15.688	37.041
8	MT	1	1	2	8	-0.636	10.532	-21.278	20.007
8	MT	1	2	2	8	-1.625	8.286	-17.867	14.616
8	MT	1	3	2	6	-3.927	7.885	-19.382	11.528
8	UT	1	1	5	20	-1.876	5.170	-12.008	8.257
8	UT	1	2	5	20	-1.060	3.794	-8.495	6.376
10	ID	1	3	2	8	-4.563	1.802	-8.094	-1.031

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	2	14	60	2.547	3.269	-3.860	8.954
1	ME	103	2	4	16	-0.542	1.350	-3.188	2.103
1	ME	104	2	6	22	0.874	2.869	-4.750	6.497
1	ME	106	2	4	18	-1.665	2.026	-5.635	2.306
1	ME	109	2	3	28	1.373	3.071	-4.647	7.393
1	NH	1	2	7	17	1.603	2.740	-3.768	6.974
1	RI	1	2	12	47	0.120	2.315	-4.418	4.657
1	VT	1	2	3	8	0.538	1.142	-1.700	2.776
3	MD	1	2	16	60	2.531	4.829	-6.934	11.996
3	MD	3	2	4	17	-0.664	7.151	-14.681	13.352
3	MD	5	2	3	14	3.177	3.018	-2.738	9.093
4	AL	12	2	5	16	0.160	1.968	-3.697	4.018
4	FL	1	2	3	10	1.272	2.279	-3.195	5.739
4	FL	2	2	2	5	-0.058	2.823	-5.590	5.475
4	FL	3	2	5	21	2.408	3.449	-4.352	9.168
4	FL	5	2	3	10	-1.453	2.621	-6.591	3.685
4	FL	6	2	5	14	-1.026	2.440	-5.808	3.756
4	FL	11	2	6	13	-0.804	3.364	-7.398	5.790
4	FL	13	2	9	39	1.115	3.480	-5.705	7.935
4	FL	14	2	2	5	-0.758	2.318	-5.302	3.786
4	FL	18	2	7	64	0.615	3.441	-6.129	7.358
4	FL	20	2	4	10	0.276	2.518	-4.660	5.212
4	KY	1	2	31	105	1.028	2.491	-3.855	5.911
4	NC	1	2	40	140	-0.565	1.460	-3.426	2.296
4	NC	3	2	3	7	2.014	4.844	-7.480	11.508
4	SC	1	2	16	87	-0.212	3.266	-6.614	6.190
4	TN	1	2	10	27	2.905	3.593	-4.138	9.948
5	IN	1	2	11	33	-0.249	2.153	-4.469	3.970
5	IN	2	2	2	16	0.192	5.837	-11.247	11.632
5	IN	3	2	2	18	0.922	4.606	-8.105	9.949
5	IN	100	2	10	30	-0.330	1.682	-3.627	2.968
5	MN	1	2	5	11	-1.968	0.964	-3.857	-0.079
5	OH	2	2	5	12	-2.590	2.762	-8.003	2.823
5	OH	7	2	2	5	-0.600	2.457	-5.416	4.217
5	OH	10	2	2	6	-2.228	4.016	-10.099	5.643
5	OH	14	2	5	14	-0.352	2.408	-5.073	4.369
6	AR	1	2	21	65	0.356	3.978	-7.441	8.152

TABLE D-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS SITES AND QUARTERS BY LEVEL

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	LEVEL	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	OK	103	2	6	18	0.182	8.542	-16.559	16.924
6	TX	1	2	13	28	0.598	2.708	-4.709	5.905
6	TX	2	2	14	74	-1.907	3.182	-8.143	4.330
6	TX	3	2	9	23	1.673	4.144	-6.451	9.796
6	TX	4	2	2	5	1.360	2.863	-4.251	6.971
6	TX	5	2	6	17	-0.778	6.207	-12.944	11.387
6	TX	6	2	10	25	-0.582	7.180	-14.655	13.491
7	NB	3	2	3	7	-0.228	1.386	-2.945	2.488
8	MT	2	2	2	11	-0.795	2.001	-4.716	3.126
8	SD	1	2	4	10	-1.225	1.107	-3.395	0.946
8	UT	1	2	11	34	-0.596	2.205	-4.918	3.726
8	WY	1	2	3	15	1.335	1.997	-2.579	5.249
9	AZ	13	2	2	5	-1.093	2.784	-6.550	4.365
9	HI	120	2	3	10	-1.049	1.984	-4.937	2.839
10	OR	1	2	4	26	-0.295	2.746	-5.678	5.087

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	4	12	-4.195	5.243	-14.471	6.081
1	MA	1	7	26	0.034	2.578	-5.019	5.087
1	NH	1	2	12	-3.090	2.640	-8.265	2.085
1	RI	1	2	32	2.097	2.173	-2.163	6.357
2	NJ	1	12	67	-0.904	5.098	-10.895	9.088
3	MD	1	7	52	-0.334	4.176	-8.519	7.852
3	MD	5	2	12	-0.352	4.403	-8.981	8.277
3	PA	1	21	85	-0.656	2.823	-6.188	4.876
3	PA	2	4	48	0.121	1.739	-3.288	3.530
3	PA	3	5	18	1.688	2.727	-3.656	7.033
3	VA	3	4	27	-1.558	2.166	-5.804	2.688
3	WV	1	2	22	1.431	5.374	-9.102	11.964
3	WV	2	2	22	-11.041	7.837	-26.401	4.320
4	FL	11	4	18	1.659	3.553	-5.305	8.623
4	FL	12	5	25	-0.066	3.061	-6.066	5.933
4	FL	13	4	59	2.487	3.622	-4.613	9.586
4	FL	17	10	43	-0.735	2.743	-6.111	4.640
4	FL	18	3	12	-1.846	2.234	-6.225	2.533
4	FL	20	2	12	0.485	2.465	-4.346	5.316
4	GA	10	4	9	0.779	3.192	-5.477	7.035
4	KY	2	7	22	0.241	2.857	-5.358	5.840
4	NC	1	6	42	-0.850	2.176	-5.116	3.416
4	NC	2	3	18	3.115	2.651	-2.081	8.312
4	NC	3	6	68	-0.900	3.880	-8.504	6.705
4	TN	2	10	96	-1.244	3.015	-7.154	4.665
4	TN	4	2	20	1.856	4.866	-7.682	11.393
5	IL	3	4	30	-2.918	5.876	-14.436	8.600
5	IN	1	4	77	-0.048	5.123	-10.090	9.993
5	IN	2	2	22	-0.754	4.397	-9.372	7.863
5	IN	8	3	33	-1.523	3.477	-8.338	5.293
5	IN	100	2	49	0.821	5.645	-10.243	11.884
5	MI	1	5	24	-1.865	1.592	-4.986	1.256
5	MI	2	4	16	-0.241	2.690	-5.513	5.032
5	MN	1	9	36	0.674	5.836	-10.765	12.113
5	OH	1	3	12	-0.818	3.795	-8.256	6.619
5	OH	6	2	12	0.035	5.176	-10.110	10.179
5	OH	8	2	9	-3.622	4.020	-11.502	4.258
5	OH	9	2	15	-7.328	7.231	-21.500	6.845
5	OH	10	2	10	-2.174	3.009	-8.072	3.723
5	WI	1	7	22	-0.527	1.924	-4.299	3.244
6	LA	1	4	22	-0.243	3.638	-7.373	6.888
6	NM	1	4	41	1.306	3.459	-5.473	8.085
6	NM	2	6	33	-0.766	3.301	-7.235	5.703
6	OK	102	2	7	6.812	5.225	-3.428	17.053
6	TX	1	9	26	4.122	4.484	-4.667	12.910
6	TX	2	5	54	-0.264	4.418	-8.923	8.396
6	TX	3	3	12	-0.444	2.273	-4.900	4.012
6	TX	6	2	5	4.149	2.331	-0.419	8.718
7	IA	1	3	23	2.147	5.965	-9.545	13.839
7	KC	1	4	24	3.147	6.748	-10.079	16.374
7	MO	2	5	24	-0.175	3.150	-6.349	6.000
7	MO	3	2	10	4.152	6.707	-8.992	17.297
7	MO	4	3	7	3.326	5.398	-7.254	13.906
7	NB	2	3	24	1.066	1.388	-1.654	3.785
7	NB	3	2	12	-0.912	2.163	-5.152	3.329
8	MT	4	3	13	-4.147	5.542	-15.009	6.715
8	UT	1	8	69	0.272	2.521	-4.670	5.214
9	AZ	13	3	9	-1.457	1.105	-3.622	0.709
9	CA	4	16	88	1.384	2.867	-4.236	7.004
9	CA	61	12	36	5.372	3.382	-1.256	12.000
10	AK	1	9	45	-1.758	2.579	-6.812	3.296

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

POLLUTANT = CO

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
10	ID	1	2	12	-0.743	3.584	-7.768	6.283
10	WA	1	18	54	0.192	2.185	-4.091	4.475

POLLUTANT = NO2

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	CT	1	3	16	-1.282	2.997	-7.156	4.593
1	MA	1	4	12	5.246	6.594	-7.679	18.170
1	RI	1	3	13	-1.774	4.849	-11.278	7.730
1	VT	1	2	19	0.869	3.003	-5.017	6.756
2	NY	1	7	285	0.977	3.922	-6.710	8.664
3	DE	1	2	10	1.568	5.763	-9.728	12.864
3	MD	1	4	21	-6.030	5.714	-17.229	5.169
3	MD	5	2	12	-2.733	7.836	-18.090	12.625
3	PA	2	3	36	1.108	6.107	-10.862	13.079
3	PA	3	3	17	-0.349	3.103	-6.432	5.734
3	VA	3	3	18	3.532	5.890	-8.013	15.077
3	WV	1	3	33	3.512	8.165	-12.491	19.515
3	WV	2	2	14	7.050	7.868	-8.370	22.470
4	FL	12	2	14	5.264	5.299	-5.121	15.650
4	FL	13	2	14	2.475	7.824	-12.859	17.809
4	FL	16	2	12	-5.072	15.274	-35.009	24.864
4	FL	18	2	6	0.956	2.615	-4.170	6.082
4	GA	10	2	6	-5.095	7.078	-18.967	8.777
4	KY	1	13	57	2.953	10.255	-17.147	23.052
4	NC	2	2	16	-4.945	4.656	-14.071	4.180
5	IL	1	9	44	1.064	3.937	-6.653	8.780
5	IL	3	5	39	-0.728	5.731	-11.961	10.505
5	IN	1	2	22	-2.863	4.914	-12.495	6.769
5	OH	8	2	12	-4.886	3.650	-12.040	2.268
5	OH	9	2	12	-1.948	5.078	-11.901	8.005
5	WI	1	2	15	-9.453	6.770	-22.722	3.816
6	LA	1	3	15	-3.516	4.564	-12.461	5.429
6	OK	103	2	17	0.776	6.723	-12.401	13.954
6	TX	1	6	18	2.361	4.340	-6.145	10.866
6	TX	2	2	27	-0.429	5.597	-11.400	10.542
6	TX	6	2	10	-1.016	0.873	-2.728	0.696
7	MO	1	2	9	-3.755	7.020	-17.513	10.003
7	MO	2	5	22	-1.868	4.036	-9.779	6.044
7	MO	3	2	8	1.798	6.584	-11.107	14.704
7	MO	4	2	11	-5.842	7.524	-20.590	8.905
8	CO	1	2	16	-8.687	6.610	-21.642	4.268
8	ND	1	4	12	7.384	7.573	-7.459	22.226
8	UT	1	3	29	-1.423	5.634	-12.466	9.621
9	CA	1	13	37	-3.653	3.623	-10.754	3.448
9	CA	36	5	14	7.060	1.462	4.194	9.927

POLLUTANT = O3

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	MA	1	7	30	-0.503	2.052	-4.526	3.519
1	NH	1	5	17	-4.170	2.524	-9.118	0.777
1	RI	1	2	24	1.148	3.403	-5.521	7.818
1	VT	1	2	13	-2.057	2.156	-6.282	2.169
3	DE	1	3	21	-2.105	5.814	-13.500	9.291

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

-- POLLUTANT = O3 --

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	1	11	81	0.849	3.577	-6.163	7.860
3	MD	3	2	12	2.596	1.808	-0.948	6.141
3	MD	5	5	35	-0.573	2.977	-6.408	5.261
3	PA	2	4	51	0.281	3.463	-6.507	7.069
3	PA	3	3	12	0.721	2.417	-4.017	5.459
3	VA	3	4	20	2.049	2.146	-2.156	6.255
3	VA	815	3	15	1.321	0.961	-0.563	3.205
3	WV	1	5	41	-0.856	4.125	-8.941	7.228
3	WV	2	2	22	-2.310	4.296	-10.730	6.111
4	AL	11	6	29	6.178	8.082	-9.662	22.018
4	AL	12	5	15	-0.935	1.573	-4.018	2.148
4	AL	13	2	6	5.475	5.762	-5.818	16.768
4	AL	14	2	11	0.485	3.087	-5.564	6.535
4	FL	3	3	11	1.546	1.902	-2.181	5.273
4	FL	12	3	14	-4.995	5.747	-16.259	6.269
4	FL	13	3	44	0.057	3.508	-6.818	6.932
4	FL	16	3	12	2.033	3.270	-4.376	8.443
4	FL	18	3	21	0.662	2.438	-4.116	5.441
4	FL	20	2	12	2.255	2.073	-1.808	6.318
4	GA	10	7	19	-2.622	3.888	-10.241	4.998
4	KY	1	17	84	-0.867	8.289	-17.114	15.381
4	KY	2	4	18	-3.697	3.959	-11.457	4.062
4	MS	100	4	48	-3.873	2.191	-8.168	0.422
4	NC	2	3	24	-1.138	3.092	-7.198	4.922
4	NC	3	3	51	0.522	3.483	-6.306	7.349
4	TN	2	2	21	-1.127	3.068	-7.141	4.886
4	TN	3	4	33	1.104	5.005	-8.705	10.913
4	TN	4	2	26	-0.062	4.377	-8.641	8.516
5	IL	1	25	74	-3.334	1.780	-6.824	0.155
5	IN	1	8	74	-1.555	4.414	-10.207	7.097
5	IN	2	2	10	-0.874	1.557	-3.925	2.177
5	IN	8	6	30	-2.125	3.825	-9.622	5.372
5	IN	100	3	44	-1.622	5.055	-11.530	8.286
5	MI	2	2	6	-2.956	2.801	-8.447	2.534
5	MN	1	5	19	2.907	11.971	-20.556	26.371
5	OH	1	3	9	-1.245	2.595	-6.330	3.841
5	OH	6	2	9	4.081	2.728	-1.265	9.428
5	OH	8	7	21	2.523	2.055	-1.504	6.550
5	OH	10	4	14	1.451	4.54	-7.449	10.351
5	OH	15	2	8	1.298	1.641	-1.918	4.514
5	WI	1	20	57	0.311	1.822	-3.260	3.883
6	LA	1	15	85	-2.235	5.493	-13.001	8.530
6	NM	1	4	36	-2.029	5.988	-13.765	9.707
6	NM	2	5	36	0.137	3.193	-6.122	6.395
6	OK	101	3	21	0.130	1.498	-2.807	3.066
6	OK	103	3	30	-0.163	2.838	-5.726	5.400
6	TX	2	4	39	0.206	4.837	-9.275	9.686
6	TX	6	6	95	-4.048	4.201	-12.283	4.186
7	IA	1	2	15	-1.164	3.787	-8.586	6.257
7	IA	2	3	72	1.535	2.467	-3.299	6.370
7	IA	3	2	12	0.073	1.112	-2.106	2.252
7	KC	1	3	12	-1.976	7.248	-16.181	12.230
7	MO	1	4	15	-2.627	1.141	-4.863	-0.391
7	MO	2	5	15	3.522	2.627	-1.626	8.671
7	MO	3	4	11	-3.180	1.868	-6.841	0.481
7	MO	4	3	11	1.594	2.949	-4.187	7.374
7	MO	5	2	12	-3.044	2.533	-8.008	1.920
7	NB	3	3	12	1.774	1.154	-0.488	4.035
8	CO	1	10	54	-0.306	4.295	-8.724	8.112
8	UT	1	5	38	-2.146	2.796	-7.626	3.333
9	AZ	13	3	9	-1.559	0.747	-3.023	-0.094

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

--- POLLUTANT = O3 ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
9	CA	36	5	16	0.025	3.772	-7.367	7.417
9	CA	61	22	92	-4.059	4.253	-12.395	4.278
10	OR	1	2	18	-1.955	6.317	-14.336	10.427

--- POLLUTANT = PB ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	DE	1	2	12	-7.483	14.059	-35.037	20.072
3	PA	3	2	77	1.687	3.955	-6.064	9.439
3	VA	1	3	50	-4.445	10.088	-24.218	15.328
4	FL	11	2	10	1.024	4.596	-7.983	10.032
4	FL	12	2	38	-0.994	2.164	-5.236	3.248
4	FL	18	2	21	-7.394	8.229	-23.522	8.735
4	GA	10	2	21	-1.580	3.853	-9.133	5.972
4	SC	1	2	8	1.840	2.559	-3.176	6.857
5	MI	2	3	16	-1.055	3.650	-8.208	6.099
6	OK	102	2	14	2.667	3.975	-5.124	10.458
6	TX	3	2	18	0.569	3.414	-6.123	7.260
7	MO	2	3	26	0.385	1.673	-2.894	3.665
7	MO	6	2	62	0.933	3.798	-6.512	8.377
10	OR	1	2	22	3.604	2.536	-1.366	8.574

--- POLLUTANT = PB_FLOW ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	NY	1	3	9	1.309	1.823	-2.264	4.882
3	MD	1	4	11	1.258	3.282	-5.174	7.690
9	HI	120	2	7	0.440	3.965	-7.330	8.211

--- POLLUTANT = PM10 ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	MA	1	5	19	-2.160	5.488	-12.916	8.595
1	ME	1	7	41	3.250	2.616	-1.877	8.376
1	ME	102	2	5	2.377	1.965	-1.474	6.229
1	ME	104	2	6	4.422	0.880	2.697	6.146
1	ME	106	2	10	1.855	2.478	-3.003	6.713
1	ME	108	2	9	3.000	2.865	-2.616	8.616
1	ME	110	2	5	2.996	3.822	-4.496	10.487
1	NH	1	2	8	0.612	3.066	-5.397	6.621
1	VT	1	4	15	2.127	2.657	-3.080	7.335
3	MD	1	3	31	1.987	3.366	-4.610	8.584
3	PA	1	19	57	1.604	2.838	-3.958	7.166
3	PA	2	9	34	-1.314	2.653	-6.513	3.886
3	VA	1	6	17	-2.613	1.155	-4.877	-0.348
3	VA	3	2	5	-2.967	2.471	-7.811	1.876
3	WV	2	3	9	0.353	3.937	-7.364	8.070
4	FL	18	2	10	-0.234	5.902	-11.803	11.334
4	KY	1	4	12	1.459	2.789	-4.008	6.927
4	SC	1	8	53	0.017	2.830	-5.531	5.564
4	TN	1	8	40	-1.661	3.112	-7.761	4.438
4	TN	4	2	9	-0.585	4.433	-9.275	8.104

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

--- POLLUTANT = PM10 ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IL	1	4	13	1.020	3.370	-5.584	7.625
5	IN	100	5	18	0.035	1.451	-2.808	2.879
5	MI	2	3	10	-0.280	2.023	-4.245	3.685
5	OH	6	2	6	1.602	2.994	-4.265	7.470
5	OH	7	2	8	3.589	1.678	0.300	6.877
5	OH	14	6	23	-2.192	3.908	-9.852	5.468
5	WI	1	6	23	-0.898	2.740	-6.268	4.473
6	AR	1	4	11	-0.452	3.789	-7.878	6.975
6	NM	2	4	11	-3.656	6.534	-16.462	9.150
6	TX	1	9	27	1.259	4.274	-7.118	9.635
7	IA	1	3	7	-0.426	4.568	-9.380	8.527
7	KC	1	4	9	-0.713	3.822	-8.204	6.778
7	MO	1	2	5	-0.391	6.444	-13.021	12.240
7	NB	2	2	7	0.113	1.544	-2.913	3.138
8	CO	1	9	23	0.952	2.448	-3.845	5.749
8	MT	4	2	16	-0.304	5.231	-10.556	9.948
8	UT	1	10	37	-1.524	2.866	-7.141	4.093
9	AZ	13	4	14	2.904	3.094	-3.159	8.968

--- POLLUTANT = SO2 ---

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	3	14	-0.457	6.719	-13.627	12.712
1	ME	104	4	31	4.457	5.871	-7.050	15.964
1	ME	110	2	11	0.320	3.554	-6.644	7.285
1	ME	113	3	22	-2.301	3.800	-9.750	5.147
1	NH	1	9	72	-2.722	5.018	-12.558	7.113
1	RI	1	3	47	0.723	5.615	-10.282	11.729
1	VT	1	3	22	0.154	3.223	-6.163	6.471
2	PR	2	2	29	-1.227	5.348	-11.709	9.254
3	DE	1	5	18	-4.546	2.944	-10.317	1.225
3	MD	1	4	29	-0.094	4.567	-9.046	8.858
3	PA	2	10	165	0.833	4.706	-8.391	10.058
3	VA	1	6	22	-2.116	1.240	-4.547	0.315
3	VA	3	4	29	2.057	6.011	-9.724	13.838
3	VA	815	2	10	-0.249	3.397	-6.908	6.409
3	WV	1	7	66	0.831	4.789	-8.555	10.216
3	WV	2	6	66	-0.559	4.565	-9.507	8.389
4	FL	1	2	15	4.641	5.113	-5.381	14.662
4	FL	2	2	9	-0.421	1.871	-4.088	3.246
4	FL	4	2	11	-2.584	4.564	-11.530	6.362
4	FL	7	2	7	0.556	7.044	-13.251	14.362
4	FL	11	4	11	-0.215	2.802	-5.706	5.277
4	FL	12	4	11	-1.025	3.087	-7.075	5.024
4	FL	13	6	57	1.125	3.326	-5.393	7.644
4	FL	16	3	15	-1.706	9.437	-20.201	16.790
4	KY	2	4	17	-0.881	5.740	-12.131	10.368
4	MS	100	3	28	-3.164	2.205	-7.487	1.159
4	NC	1	7	38	0.353	6.051	-11.507	12.214
4	NC	2	2	16	-1.941	5.807	-13.323	9.441
4	SC	1	3	124	-0.178	6.695	-13.300	12.945
4	TN	3	2	22	0.979	4.075	-7.009	8.967
5	IN	8	3	31	0.809	4.107	-7.241	8.860
5	IN	10	2	12	3.581	3.747	-3.763	10.926
5	MI	1	6	23	2.094	3.664	-5.087	9.275
5	MI	2	5	13	0.073	3.579	-6.943	7.089
5	MN	1	8	33	-1.816	2.019	-5.773	2.141
5	OH	1	2	12	-7.261	6.036	-19.093	4.570

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

POLLUTANT = SO2

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	OH	2	3	14	9.144	8.052	-6.638	24.926
5	OH	4	3	11	-1.914	6.523	-14.700	10.871
5	OH	6	2	15	-4.445	4.248	-12.771	3.880
5	OH	8	4	14	-1.649	3.492	-8.492	5.195
5	OH	10	2	6	-10.831	1.314	-13.407	-8.255
5	OH	15	2	12	-4.178	5.747	-15.443	7.087
6	AR	1	2	24	-1.420	8.055	-17.207	14.367
6	LA	1	7	33	-1.907	5.632	-12.947	9.132
6	NM	1	9	82	1.594	5.282	-8.758	11.946
6	OK	101	4	12	3.540	4.814	-5.896	12.977
6	OK	103	2	18	-0.245	2.661	-5.460	4.969
6	TX	1	12	38	-3.885	7.683	-18.943	11.172
6	TX	2	2	19	-0.670	5.490	-11.430	10.091
6	TX	6	5	24	-4.491	3.647	-11.639	2.656
7	IA	2	5	86	2.230	2.977	-3.604	8.065
7	IA	3	8	26	1.531	5.766	-9.770	12.832
7	KC	1	2	10	-0.181	1.802	-3.712	3.350
7	MO	1	2	6	-4.390	2.264	-8.827	0.047
7	MO	3	3	12	-6.229	3.872	-13.817	1.360
7	MO	4	2	8	-5.733	4.098	-13.764	2.299
7	MO	5	2	12	-6.532	4.831	-16.002	2.937
8	ND	1	6	21	-2.845	2.592	-7.925	2.235
8	UT	1	5	53	-1.556	4.011	-9.418	6.305
9	CA	36	3	9	7.233	6.072	-4.667	19.134
9	CA	61	14	42	-3.494	2.488	-8.371	1.382
10	ID	1	2	16	-4.087	1.677	-7.374	-0.801

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	14	60	2.547	3.269	-3.860	8.954
1	ME	103	4	16	-0.542	1.350	-3.188	2.103
1	ME	104	6	22	0.874	2.869	-4.750	6.497
1	ME	106	4	18	-1.665	2.026	-5.635	2.306
1	ME	109	3	28	1.373	3.071	-4.647	7.393
1	NH	1	7	17	1.603	2.740	-3.768	6.974
1	RI	1	12	47	0.120	2.315	-4.418	4.657
1	VT	1	3	8	0.538	1.142	-1.700	2.776
3	MD	1	16	60	2.531	4.829	-6.934	11.996
3	MD	3	4	17	-0.664	7.151	-14.681	13.352
3	MD	5	3	14	3.177	3.018	-2.738	9.093
4	AL	12	5	16	0.160	1.968	-3.697	4.018
4	FL	1	3	10	1.272	2.279	-3.195	5.739
4	FL	2	2	5	-0.058	2.823	-5.590	5.475
4	FL	3	5	21	2.408	3.449	-4.352	9.168
4	FL	5	3	10	-1.453	2.621	-6.591	3.685
4	FL	6	5	14	-1.026	2.440	-5.808	3.756
4	FL	11	6	13	-0.804	3.364	-7.398	5.790
4	FL	13	9	39	1.115	3.480	-5.705	7.935
4	FL	14	2	5	-0.758	2.318	-5.302	3.786
4	FL	18	7	64	0.615	3.441	-6.129	7.358
4	FL	20	4	10	0.276	2.518	-4.660	5.212
4	KY	1	31	105	1.028	2.491	-3.855	5.911
4	NC	1	40	140	-0.565	1.460	-3.426	2.296
4	NC	3	3	7	2.014	4.844	-7.480	11.508
4	SC	1	16	87	-0.212	3.266	-6.614	6.190
4	TN	1	10	27	2.905	3.593	-4.138	9.948
5	IN	1	11	33	-0.249	2.153	-4.469	3.970

TABLE D-2. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, SITES AND QUARTERS

POLLUTANT = TSP

REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IN	2	2	16	0.192	5.837	-11.247	11.632
5	IN	3	2	18	0.922	4.606	-8.105	9.949
5	IN	100	10	30	-0.330	1.682	-3.627	2.968
5	MN	1	5	11	-1.968	0.964	-3.857	-0.079
5	OH	2	5	12	-2.590	2.762	-8.003	2.823
5	OH	7	2	5	-0.600	2.457	-5.416	4.217
5	OH	10	2	6	-2.228	4.016	-10.099	5.643
5	OH	14	5	14	-0.352	2.408	-5.073	4.369
6	AR	1	21	65	0.356	3.978	-7.441	8.152
6	OK	103	6	18	0.182	8.542	-16.559	16.924
6	TX	1	13	28	0.598	2.708	-4.709	5.905
6	TX	2	14	74	-1.907	3.182	-8.143	4.330
6	TX	3	9	23	1.673	4.144	-6.451	9.796
6	TX	4	2	5	1.360	2.863	-4.251	6.971
6	TX	5	6	17	-0.778	6.207	-12.944	11.387
6	TX	6	10	25	-0.582	7.180	-14.655	13.491
7	NB	3	3	7	-0.228	1.386	-2.945	2.488
8	MT	2	2	11	-0.795	2.001	-4.716	3.126
8	SD	1	4	10	-1.225	1.107	-3.395	0.946
8	UT	1	11	34	-0.596	2.205	-4.918	3.726
8	WY	1	3	15	1.335	1.997	-2.579	5.249
9	AZ	13	2	5	-1.093	2.784	-6.550	4.365
9	HI	120	3	10	-1.049	1.984	-4.937	2.839
10	OR	1	4	26	-0.295	2.746	-5.678	5.087

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS AND QUARTERS BY LEVEL

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. AND QUARTERS BY LEVEL

POLLUTANT = CO

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	1	2	31	-3.554	3.797	-10.995	3.887
3	MD	2	2	28	2.781	1.541	-0.240	5.802
3	PA	2	3	56	-0.176	2.879	-5.819	5.466
3	VA	1	2	17	-2.095	2.498	-6.991	2.801
3	VA	2	2	18	-1.861	2.188	-6.149	2.428
3	VA	3	2	16	-1.460	2.056	-5.491	2.570
3	WV	1	2	16	-4.757	8.695	-21.800	12.285
3	WV	2	2	16	-5.277	6.682	-18.373	7.820
3	WV	3	2	12	-4.239	4.614	-13.282	4.803
4	AL	1	2	30	3.243	9.361	-15.104	21.591
4	AL	2	2	30	2.115	6.238	-10.111	14.340
4	FL	1	9	67	1.060	5.052	-8.841	10.961
4	KY	1	2	40	1.413	9.674	-17.547	20.373
4	KY	2	2	16	2.882	3.587	-4.149	9.913
4	KY	3	2	16	1.796	2.166	-2.450	6.041
4	NC	1	3	45	-1.539	4.450	-10.261	7.182
4	NC	2	3	45	0.179	3.165	-6.025	6.383
4	NC	3	3	38	0.537	1.755	-2.902	3.976
5	IL	2	2	36	1.393	3.537	-5.539	8.325
5	IN	1	4	67	-3.607	6.373	-16.099	8.885
5	IN	2	4	67	1.662	2.895	-4.012	7.335
5	MI	1	2	14	-1.830	4.101	-9.868	6.208
5	MI	2	2	14	-0.736	2.198	-5.044	3.572
5	MI	3	3	15	-0.942	1.963	-4.789	2.905
5	OH	1	9	37	-4.551	6.812	-17.902	8.801
5	OH	2	9	34	-2.339	2.804	-7.835	3.157
5	OH	3	9	34	-1.859	2.515	-6.788	3.070
6	NM	1	2	22	-0.463	5.828	-11.885	10.960
6	NM	2	2	28	1.185	3.176	-5.040	7.410
6	NM	3	2	24	0.220	3.551	-6.740	7.179
6	OK	2	2	10	1.028	2.713	-4.290	6.345
6	OK	3	2	10	2.478	1.206	0.115	4.840
6	TX	1	4	33	2.835	5.217	-7.390	13.060
6	TX	2	4	33	1.038	4.683	-8.141	10.218
6	TX	3	3	30	-0.628	3.623	-7.729	6.472
7	IA	1	2	20	3.987	3.436	-2.747	10.721
7	IA	2	3	13	-1.880	2.767	-7.304	3.543
7	IA	3	3	22	-0.701	2.425	-5.455	4.053
7	MO	1	5	23	1.499	6.420	-11.084	14.081
7	MO	3	5	23	2.563	1.815	-0.994	6.120
7	NB	1	2	12	1.930	1.615	-1.235	5.095
7	NB	2	2	12	-0.148	1.019	-2.146	1.849
8	MT	1	2	9	-2.403	10.074	-22.148	17.343
8	MT	2	2	9	-4.408	7.260	-18.638	9.822
8	MT	3	2	6	-6.608	9.930	-26.070	12.855
9	CA	1	4	57	4.226	10.202	-15.769	24.221

POLLUTANT = NO2

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	1	2	13	-1.059	8.011	-16.761	14.643
3	MD	2	2	11	-6.550	4.665	-15.694	2.594
3	PA	1	3	41	2.673	6.129	-9.339	14.686
3	PA	2	3	41	1.350	5.519	-9.468	12.167
3	PA	3	3	38	0.803	5.144	-9.279	10.885
3	VA	1	2	15	2.609	8.328	-13.715	18.933
3	VA	2	2	14	1.847	5.917	-9.751	13.445
3	VA	3	2	16	0.713	6.158	-11.356	12.782

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. AND QUARTERS BY LEVEL

POLLUTANT = NO2

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	WV	1	2	17	6.827	11.652	-16.011	29.665
3	WV	2	2	17	3.668	5.883	-7.862	15.198
3	WV	3	2	13	2.783	4.330	-5.704	11.271
4	FL	1	5	18	2.096	12.278	-21.969	26.161
4	FL	2	5	19	1.512	9.366	-16.845	19.869
4	FL	3	5	19	1.911	7.661	-13.105	16.927
4	KY	1	2	27	2.059	16.359	-30.004	34.122
5	IL	1	2	25	-1.104	8.525	-17.814	15.605
5	IL	2	2	23	0.165	5.830	-11.262	11.592
5	IL	3	2	25	0.927	5.966	-10.767	12.620
5	IN	1	2	12	-2.832	5.621	-13.848	8.185
5	IN	2	2	12	-1.975	4.206	-10.219	6.269
5	IN	3	2	9	-0.765	4.580	-9.742	8.213
5	OH	1	3	12	-0.942	5.699	-12.112	10.228
5	OH	2	3	12	-1.821	4.117	-9.890	6.249
5	OH	3	3	12	-3.366	3.290	-9.815	3.082
6	OK	1	3	13	3.652	6.833	-9.741	17.046
6	OK	2	3	14	0.316	5.673	-10.802	11.434
6	OK	3	3	14	-1.454	4.873	-11.006	8.097
6	TX	1	2	15	0.640	7.771	-14.592	15.871
6	TX	2	3	18	0.381	4.902	-9.226	9.989
6	TX	3	3	18	0.199	5.458	-10.498	10.896
7	MO	1	5	20	-1.114	9.573	-19.877	17.649
7	MO	2	5	17	-3.687	3.534	-10.614	3.240
7	MO	3	5	19	-3.988	2.068	-8.041	0.065

POLLUTANT = O3

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	1	3	56	0.879	4.198	-7.349	9.106
3	MD	2	3	51	1.132	3.787	-6.291	8.555
3	MD	3	3	26	-0.935	3.049	-6.911	5.041
3	PA	1	3	62	-0.042	4.265	-8.401	8.317
3	PA	2	3	62	-0.224	3.672	-7.422	6.974
3	PA	3	3	52	-0.069	2.957	-5.864	5.727
3	VA	1	3	28	1.105	3.412	-5.583	7.793
3	VA	2	3	27	0.794	2.897	-4.883	6.471
3	VA	3	3	22	1.632	2.947	-4.144	7.408
3	WV	1	2	23	-2.059	6.153	-14.119	10.001
3	WV	2	2	23	-0.675	3.119	-6.788	5.438
3	WV	3	2	17	-1.356	2.697	-6.642	3.930
4	AL	2	4	27	2.093	3.769	-5.294	9.480
4	FL	1	13	77	-0.243	4.555	-9.170	8.685
4	FL	2	13	77	-0.245	3.815	-7.722	7.232
4	FL	3	13	68	-0.475	3.903	-8.126	7.175
4	KY	1	2	44	-1.287	10.022	-20.930	18.356
4	KY	2	2	41	-1.314	8.495	-17.964	15.337
4	KY	3	2	17	-1.698	4.862	-11.228	7.832
4	NC	1	3	46	0.466	5.489	-10.292	11.224
4	NC	2	3	46	0.472	3.657	-6.697	7.640
4	NC	3	3	35	-0.075	3.444	-6.825	6.675
4	TN	1	5	65	-0.293	5.403	-10.882	10.296
4	TN	2	5	64	-0.421	4.207	-8.667	7.825
4	TN	3	5	52	-0.800	4.300	-9.228	7.629
5	IL	1	2	48	-2.921	4.645	-12.025	6.183
5	IL	2	2	46	-2.141	4.142	-10.259	5.976
5	IL	3	2	46	-2.211	3.935	-9.924	5.503
5	IN	1	6	75	-1.927	5.287	-12.289	8.434

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. AND QUARTERS BY LEVEL

POLLUTANT = O3

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
5	IN	2	6	75	-0.682	3.475	-7.494	6.130
5	IN	3	6	30	-1.328	3.546	-8.279	5.623
5	MI	1	2	15	-0.372	3.995	-8.201	7.458
5	MI	2	2	15	0.459	2.436	-4.316	5.234
5	MI	3	2	15	1.010	2.353	-3.602	5.622
5	OH	1	10	36	1.104	5.079	-8.850	11.059
5	OH	2	10	36	0.823	4.253	-7.512	9.158
6	NM	1	2	25	-0.325	6.321	-12.715	12.064
6	NM	2	2	25	-1.054	4.137	-9.162	7.054
6	NM	3	2	22	-1.529	3.916	-9.205	6.147
6	OK	1	3	21	-0.431	3.377	-7.049	6.188
6	OK	2	3	21	0.202	2.093	-3.900	4.304
6	OK	3	3	21	0.572	2.096	-3.536	4.680
6	TX	2	3	61	-1.958	4.842	-11.449	7.532
6	TX	3	3	62	-0.770	5.424	-11.400	9.861
7	IA	1	3	33	1.217	3.098	-4.855	7.290
7	IA	2	3	33	0.954	2.129	-3.218	5.126
7	IA	3	3	33	0.676	2.191	-3.618	4.969
7	MO	1	5	22	0.056	4.742	-9.239	9.351
7	MO	3	5	20	-1.424	3.511	-8.305	5.458
7	NB	1	2	6	2.396	0.438	1.538	3.254
7	NB	2	2	6	1.859	0.948	0.000	3.718
7	NB	3	2	6	0.486	0.642	-0.772	1.744
9	CA	3	4	95	-3.765	2.972	-9.591	2.061
9	CA	4	3	69	-3.354	2.428	-8.112	1.405

POLLUTANT = PB

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	1	3	83	-0.242	4.752	-9.556	9.072
3	PA	2	3	82	0.052	6.078	-11.862	11.966
5	IL	1	3	23	-3.287	2.846	-8.866	2.292
5	MI	1	2	27	-2.660	5.023	-12.505	7.184
5	OH	1	7	62	0.937	10.790	-20.212	22.085
5	OH	2	7	38	-4.053	2.584	-9.117	1.011
6	NM	1	2	29	-0.457	3.409	-7.139	6.225
6	NM	2	2	28	-2.551	3.009	-8.448	3.346
6	OK	1	3	21	0.006	3.287	-6.437	6.448
6	TX	1	5	136	-0.454	3.079	-6.488	5.581
9	CA	1	2	14	-0.217	6.308	-12.582	12.147
9	CA	2	2	14	1.110	2.947	-4.667	6.887

POLLUTANT = PB_FLOW

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	2	17	0.971	2.331	-3.597	5.539

POLLUTANT = PM10

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	2	10	100	1.931	3.335	-4.606	8.469
3	PA	2	2	122	0.791	2.904	-4.902	6.483

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. AND QUARTERS BY LEVEL

POLLUTANT = PM10

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	AL	2	4	14	-1.570	3.559	-8.545	5.405
4	KY	2	2	20	1.617	2.388	-3.064	6.299
4	TN	2	5	76	-1.141	3.339	-7.685	5.402
5	IL	2	3	27	0.016	3.375	-6.599	6.630
5	MI	2	2	20	0.173	2.317	-4.368	4.714
6	OK	2	2	5	-5.305	2.131	-9.481	-1.129
6	TX	2	2	36	1.137	4.340	-7.370	9.643
7	IA	2	2	14	-0.315	5.484	-11.064	10.435
7	MO	2	4	19	0.732	4.949	-8.968	10.433
7	NB	2	3	17	-0.948	3.198	-7.216	5.320
8	MT	2	2	47	0.211	4.350	-8.315	8.736
9	AZ	2	2	18	2.843	4.031	-5.058	10.744
9	CA	2	3	28	-2.313	8.800	-19.562	14.935

POLLUTANT = SO2

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	1	6	35	2.229	6.910	-11.315	15.772
1	ME	2	5	29	0.709	5.909	-10.873	12.291
3	MD	1	2	15	-0.474	5.573	-11.398	10.449
3	MD	2	2	14	-0.221	4.773	-9.576	9.134
3	PA	2	3	96	0.015	5.585	-10.931	10.962
3	PA	3	3	78	1.428	5.902	-10.141	12.996
3	VA	1	3	20	0.404	5.770	-10.905	11.713
3	VA	2	3	22	0.068	4.874	-9.485	9.622
3	WV	1	2	48	-0.926	6.908	-14.466	12.614
3	WV	2	2	48	0.847	4.416	-7.809	9.503
3	WV	3	2	36	0.603	3.158	-5.587	6.793
4	KY	1	2	40	0.124	6.564	-12.741	12.990
4	KY	2	2	42	-2.512	5.177	-12.658	7.634
4	KY	3	2	22	-4.929	5.202	-15.125	5.266
4	NC	1	2	19	-0.272	8.772	-17.466	16.921
4	NC	2	2	19	0.361	6.779	-12.926	13.649
4	NC	3	2	14	-0.481	6.756	-13.723	12.762
4	TN	1	3	26	0.110	6.133	-11.910	12.130
4	TN	2	3	25	-0.450	6.189	-12.580	11.679
4	TN	3	3	20	0.128	5.767	-11.176	11.432
5	IL	1	2	37	3.743	8.201	-12.330	19.817
5	IL	2	2	40	1.679	5.842	-9.771	13.128
5	IL	3	2	40	0.406	4.720	-8.845	9.658
5	IN	1	6	149	1.551	6.288	-10.773	13.875
5	IN	2	6	149	1.171	5.537	-9.682	12.024
5	IN	3	6	108	0.284	5.516	-10.529	11.096
5	MI	1	2	13	0.781	4.667	-8.366	9.928
5	MI	2	2	13	1.919	4.672	-7.238	11.076
5	MI	3	3	13	0.771	5.456	-9.923	11.464
5	OH	1	14	67	-2.007	7.877	-17.445	13.431
5	OH	2	14	67	-1.635	8.098	-17.507	14.237
5	OH	3	14	58	-2.171	7.423	-16.719	12.378
6	OK	1	3	14	3.419	3.833	-4.094	10.931
6	OK	2	3	14	1.663	4.247	-6.660	9.986
6	OK	3	3	13	-1.052	4.931	-10.717	8.614
6	TX	1	4	26	-5.356	11.371	-27.644	16.932
6	TX	2	4	26	-3.514	4.975	-13.266	6.237
6	TX	3	4	25	-1.468	3.621	-8.565	5.629
6	TX	4	2	9	-2.040	2.377	-6.699	2.618
7	IA	1	2	57	1.476	2.907	-4.222	7.175
7	IA	3	2	27	3.222	3.493	-3.624	10.068

TABLE D-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. AND QUARTERS BY LEVEL

POLLUTANT = SO2

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	MO	1	5	20	-7.661	6.006	-19.433	4.111
7	MO	2	5	20	-3.631	3.450	-10.393	3.131
7	MO	3	5	20	-3.305	3.304	-9.781	3.171
9	CA	1	4	45	0.226	10.903	-21.143	21.596
9	CA	2	4	45	0.810	7.976	-14.824	16.443
9	CA	3	3	41	-0.309	6.692	-13.425	12.808

POLLUTANT = TSP

REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	4	116	2.198	5.029	-7.659	12.056
3	PA	2	3	73	1.098	2.850	-4.487	6.683
3	VA	2	3	74	-1.176	3.149	-7.349	4.996
3	WV	2	2	32	1.243	5.572	-9.679	12.165
4	TN	2	5	101	1.659	3.516	-5.233	8.552
5	IN	2	7	159	0.306	2.911	-5.399	6.012
5	MI	2	2	46	0.172	2.861	-5.435	5.780
5	OH	2	15	153	-0.360	4.284	-8.756	8.037
6	OK	2	3	33	0.689	6.710	-12.464	13.841
6	TX	2	6	215	-0.393	4.267	-8.757	7.971
7	IA	2	3	38	2.817	5.672	-8.299	13.934
7	MO	2	5	16	-0.342	4.625	-9.407	8.723
7	NB	2	2	30	-0.628	2.458	-5.445	4.190
8	MT	2	4	33	-0.399	2.427	-5.157	4.358
9	CA	2	2	17	3.076	8.096	-12.791	18.944

TABLE D-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, REPORTING ORGANIZATIONS AND QUARTERS

TABLE D-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, R. O. AND QUARTERS

POLLUTANT = CO

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	65	-0.337	4.196	-8.561	7.887
3	VA	2	51	-1.813	2.192	-6.110	2.484
3	WV	2	44	-4.805	6.916	-18.359	8.750
4	AL	2	70	2.795	7.465	-11.837	17.427
4	KY	2	72	1.825	7.441	-12.759	16.408
5	IL	2	108	-0.045	4.739	-9.334	9.244
5	IN	4	181	-0.168	5.122	-10.206	9.871
5	MI	3	43	-1.164	2.853	-6.756	4.428
5	OH	9	105	-2.963	4.734	-12.241	6.315
6	NM	2	74	0.382	4.255	-7.958	8.722
6	OK	3	31	1.617	4.213	-6.640	9.874
6	TX	4	97	1.117	4.733	-8.160	10.394
7	MO	5	60	2.000	4.181	-6.194	10.194
8	MT	3	27	-4.236	8.150	-20.209	11.738
9	AZ	2	12	-1.202	0.948	-3.061	0.657

POLLUTANT = NO2

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	33	-4.831	6.495	-17.562	7.900
3	PA	3	120	1.629	5.601	-9.350	12.608
3	VA	2	45	1.698	6.699	-11.432	14.828
3	WV	2	47	4.566	8.249	-11.603	20.735
4	KY	2	61	2.333	12.552	-22.268	26.934
5	IL	2	83	0.222	6.470	-12.459	12.903
5	OH	3	36	-2.043	4.324	-10.518	6.432
6	NM	2	15	5.357	4.370	-3.209	13.922
6	OK	3	41	0.769	5.910	-10.814	12.353
7	MO	5	56	-2.870	6.135	-14.895	9.154

POLLUTANT = O3

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	3	176	-0.114	3.670	-7.308	7.080
3	WV	2	63	-1.364	4.310	-9.811	7.083
5	IL	2	140	-2.431	4.218	-10.698	5.835
5	MI	2	45	0.380	2.968	-5.438	6.197
7	NB	2	18	1.580	1.161	-0.696	3.857

POLLUTANT = PB

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	PA	3	165	-0.096	5.425	-10.730	10.538
5	OH	7	100	-0.959	8.917	-18.437	16.518
6	NM	2	57	-1.486	3.339	-8.030	5.058
9	CA	2	28	0.446	4.956	-9.267	10.160

TABLE D-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, R. O. AND QUARTERS

POLLUTANT = PB_FLOW

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	2	17	0.971	2.331	-3.597	5.539
7	MO	2	6	-0.766	3.965	-8.537	7.005

POLLUTANT = PM10

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	ME	10	100	1.931	3.335	-4.606	8.469
3	PA	2	122	0.791	2.904	-4.902	6.483
4	AL	4	14	-1.570	3.559	-8.545	5.405
4	KY	2	20	1.617	2.388	-3.064	6.299
4	TN	5	76	-1.141	3.339	-7.685	5.402
5	IL	3	27	0.016	3.375	-6.599	6.630
5	MI	2	20	0.173	2.317	-4.368	4.714
6	OK	2	5	-5.305	2.131	-9.481	-1.129
6	TX	2	36	1.137	4.340	-7.370	9.643
7	IA	2	14	-0.315	5.484	-11.064	10.435
7	MO	4	19	0.732	4.949	-8.968	10.433
7	NB	3	17	-0.948	3.198	-7.216	5.320
8	MT	2	47	0.211	4.350	-8.315	8.736
9	AZ	2	18	2.843	4.031	-5.058	10.744
9	CA	3	28	-2.313	8.800	-19.562	14.935

POLLUTANT = SO2

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
2	PR	2	31	-0.876	5.205	-11.079	9.326
3	MD	2	36	-1.114	4.954	-10.824	8.595
3	PA	3	285	0.237	5.799	-11.128	11.602
3	WV	2	132	0.136	5.221	-10.097	10.368
4	KY	2	105	-2.013	6.079	-13.929	9.903
4	NC	2	54	-0.327	7.417	-14.864	14.211
4	TN	3	75	-0.031	5.688	-11.179	11.117
5	IL	2	121	1.936	6.382	-10.573	14.445
5	MI	3	39	1.157	4.713	-8.080	10.394
6	OK	3	41	1.402	4.888	-8.180	10.983
7	MO	5	62	-4.974	4.559	-13.909	3.961

POLLUTANT = TSP

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	MD	4	116	2.198	5.029	-7.659	12.056
3	PA	3	73	1.098	2.850	-4.487	6.683
3	VA	3	74	-1.176	3.149	-7.349	4.996
3	WV	2	32	1.243	5.572	-9.679	12.165
4	TN	5	101	1.659	3.516	-5.233	8.552
5	IN	7	159	0.306	2.911	-5.399	6.012
5	MI	2	46	0.172	2.861	-5.435	5.780
5	OH	15	153	-0.360	4.284	-8.756	8.037
6	OK	3	33	0.689	6.710	-12.464	13.841
6	TX	6	215	-0.393	4.267	-8.757	7.971
7	IA	3	38	2.817	5.672	-8.299	13.934
7	MO	5	16	-0.342	4.625	-9.407	8.723

TABLE D-4. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, R. O. AND QUARTERS

POLLUTANT = TSP

REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	NB	2	30	-0.628	2.458	-5.445	4.190
8	MT	4	33	-0.399	2.427	-5.157	4.358
9	CA	2	17	3.076	8.096	-12.791	18.944

TABLE D-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS BY LEVEL

TABLE D-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS BY LEVEL

POLLUTANT = CO

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
4	3	8	218	0.222	3.208	-6.064	6.509
5	1	6	178	-3.055	6.643	-16.075	9.965
5	2	6	173	0.419	3.474	-6.390	7.229
6	1	4	73	1.100	6.392	-11.428	13.627
6	2	4	79	1.138	4.323	-7.335	9.611
6	3	4	72	0.156	3.498	-6.700	7.012
7	2	4	47	0.419	3.267	-5.985	6.822
7	3	4	65	0.849	2.764	-4.569	6.267
9	1	3	118	1.944	9.589	-16.850	20.737
9	2	3	90	1.476	4.202	-6.759	9.712
9	3	3	65	1.060	3.097	-5.011	7.131
10	3	4	100	0.125	3.631	-6.991	7.241

POLLUTANT = NO2

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	4	21	0.996	5.155	-9.109	11.100
1	2	4	22	0.690	5.310	-9.717	11.097
1	3	3	14	1.299	4.090	-6.718	9.316
3	2	5	86	0.824	5.552	-10.058	11.707
3	3	5	80	0.023	5.039	-9.854	9.899
4	1	5	60	0.653	13.642	-26.084	27.391
4	2	4	53	1.460	9.008	-16.195	19.115
4	3	5	39	0.625	6.458	-12.034	13.284
5	1	6	58	-3.055	7.109	-16.989	10.878
5	2	6	56	-1.577	5.239	-11.845	8.692
6	1	4	44	2.050	7.075	-11.818	15.917
6	2	5	45	0.438	5.378	-10.104	10.979
6	3	4	40	-0.971	5.370	-11.496	9.554
8	1	3	20	-0.705	8.696	-17.750	16.340
8	2	3	19	-2.371	4.427	-11.048	6.306
8	3	3	18	-1.806	4.262	-10.159	6.548

POLLUTANT = O3

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	6	63	-0.393	4.006	-8.244	7.458
1	2	6	64	-0.554	2.581	-5.612	4.505
1	3	6	36	-0.914	3.125	-7.040	5.211
3	2	5	175	0.170	3.815	-7.308	7.648
4	3	8	370	-0.552	4.852	-10.061	8.958
5	3	5	141	-0.637	3.860	-8.202	6.928
6	1	5	150	-2.756	6.469	-15.436	9.923
8	1	3	33	-2.183	4.449	-10.904	6.537
8	2	3	32	-0.235	4.282	-8.627	8.158
8	3	3	30	0.307	3.830	-7.200	7.815
9	2	4	119	-2.995	4.172	-11.173	5.182
9	3	3	108	-3.434	3.135	-9.579	2.710
10	2	2	10	-2.553	4.303	-10.988	5.881
10	3	2	11	-3.240	3.938	-10.957	4.478

TABLE D-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS BY LEVEL

-- POLLUTANT = PB --

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	3	29	5.474	9.463	-13.073	24.021
1	2	3	25	2.160	10.640	-18.695	23.015
4	1	6	108	-0.723	5.366	-11.239	9.794
4	2	5	101	-1.292	6.001	-13.055	10.470
5	2	5	166	-1.980	3.783	-9.395	5.436
6	2	4	150	-1.121	4.261	-9.473	7.231

-- POLLUTANT = PB_FLOW --

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	2	3	29	0.767	3.165	-5.436	6.970
7	2	2	9	2.657	5.094	-7.328	12.642
8	2	2	5	-1.847	1.827	-5.427	1.734

-- POLLUTANT = PM10 --

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	2	5	72	-0.463	4.321	-8.931	8.006
7	2	4	63	-0.246	4.558	-9.180	8.689
9	2	3	49	-0.461	7.194	-14.561	13.640
10	2	2	39	-0.400	2.596	-5.489	4.688

-- POLLUTANT = SO2 --

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	1	6	117	0.722	6.460	-11.939	13.382
1	2	6	114	-0.059	5.359	-10.563	10.446
1	3	6	78	-1.194	4.837	-10.675	8.287
2	1	3	163	0.005	4.842	-9.486	9.496
2	2	3	164	-0.569	4.630	-9.644	8.506
2	3	2	128	-1.089	4.555	-10.017	7.838
3	1	5	185	-0.704	6.268	-12.989	11.582
3	2	5	186	0.062	5.183	-10.097	10.221
4	1	7	208	-0.930	8.300	-17.197	15.338
4	2	7	203	-0.638	6.278	-12.943	11.667
4	3	7	178	-0.386	6.438	-13.005	12.234
5	4	3	16	0.024	5.278	-10.320	10.368
6	1	5	91	-1.219	8.117	-17.128	14.690
6	2	5	88	-0.593	4.917	-10.231	9.044
6	3	5	78	-0.168	5.447	-10.843	10.508
7	2	4	53	-0.163	3.727	-7.469	7.143
7	3	4	51	0.300	3.696	-6.944	7.543
8	1	4	43	0.539	10.257	-19.564	20.642
8	2	4	43	0.348	9.191	-17.665	18.361
8	3	4	29	-0.385	8.273	-16.600	15.830
8	4	2	11	-3.409	4.947	-13.105	6.287
10	2	3	20	-0.672	4.740	-9.963	8.618
10	3	3	34	-2.399	4.568	-11.351	6.554

TABLE D-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES AND QUARTERS BY LEVEL

-- POLLUTANT = TSP --

REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	2	4	113	0.837	4.878	-8.724	10.399
8	2	6	150	0.144	2.581	-4.916	5.204
9	2	4	39	1.641	6.392	-10.887	14.169

TABLE D-6. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, STATES AND QUARTERS

TABLE D-6. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, STATES AND QUARTERS

POLLUTANT = CO

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	4	224	0.810	4.924	-8.840	10.460

POLLUTANT = NO2

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	4	62	0.748	4.605	-8.277	9.773
3	5	255	1.344	6.534	-11.463	14.151
5	6	178	-1.595	5.909	-13.177	9.987
6	5	130	0.537	6.002	-11.227	12.302
8	3	57	-1.608	6.715	-14.769	11.554

POLLUTANT = O3

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	6	163	-0.571	3.307	-7.052	5.910
8	3	100	-0.848	4.399	-9.469	7.774
9	4	414	-3.209	5.332	-13.660	7.243
10	2	27	-1.531	5.751	-12.803	9.741

POLLUTANT = PB

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	4	56	3.936	10.177	-16.011	23.882
4	7	212	-0.999	5.610	-11.994	9.995
5	5	360	-2.188	5.966	-13.882	9.505
9	3	58	0.882	4.200	-7.349	9.113

POLLUTANT = PB_FLOW

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
3	3	29	0.767	3.165	-5.436	6.970
7	2	12	1.470	4.532	-7.412	10.352
8	2	5	-1.847	1.827	-5.427	1.734

POLLUTANT = PM10

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
6	5	72	-0.463	4.321	-8.931	8.006
7	4	63	-0.246	4.558	-9.180	8.689
9	3	49	-0.461	7.194	-14.561	13.640
10	2	39	-0.400	2.596	-5.489	4.688

TABLE D-6. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS, STATES AND QUARTERS

POLLUTANT = SO2

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
1	6	313	-0.095	5.644	-11.157	10.967
6	5	268	-0.741	6.331	-13.150	11.667

POLLUTANT = TSP

REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
7	4	113	0.837	4.878	-8.724	10.399
8	6	150	0.144	2.581	-4.916	5.204
9	4	39	1.641	6.392	-10.887	14.169

APPENDIX E

PROBABILITY LIMITS FOR NPAP DATA

TABLE E-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND SITES

TABLE E-1. REPORTING ORGANIZATIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND SITES

POLLUTANT	REGION	STATE	REPORTING ORGANIZATION	NUMBER OF SITES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
CO	1	MA	1	2	6	-2.602	2.682	-7.859	2.654
CO	2	NJ	1	9	27	0.434	3.611	-6.643	7.510
CO	2	NY	1	4	12	-0.983	2.490	-5.863	3.896
CO	3	DC	1	2	6	3.699	1.409	0.938	6.460
CO	3	MD	1	5	15	1.524	2.781	-3.926	6.974
CO	3	PA	1	5	15	-0.814	1.445	-3.645	2.018
CO	3	PA	2	3	9	2.415	1.372	-0.275	5.104
CO	3	PA	3	3	9	1.127	1.291	-1.404	3.658
CO	3	VA	1	5	15	-0.815	1.442	-3.642	2.012
CO	3	VA	3	4	11	-0.511	2.126	-4.679	3.656
CO	3	WV	1	2	6	-3.949	9.713	-22.986	15.087
CO	3	WV	2	2	6	-4.810	4.372	-13.379	3.760
CO	4	AL	12	5	15	-0.925	2.666	-6.150	4.299
CO	4	FL	12	4	12	0.314	3.481	-6.508	7.137
CO	4	FL	18	2	6	2.562	1.947	-1.254	6.378
CO	4	GA	10	2	6	-6.011	7.656	-21.016	8.995
CO	4	KY	1	5	15	0.973	2.028	-3.003	4.948
CO	4	NC	1	2	6	0.346	1.210	-2.025	2.717
CO	4	NC	2	2	6	0.184	1.847	-3.436	3.803
CO	4	NC	3	5	15	-0.084	2.680	-5.336	5.169
CO	4	SC	1	2	6	-1.583	5.174	-11.724	8.557
CO	4	TN	2	3	9	2.463	1.901	-1.262	6.188
CO	4	TN	3	3	9	2.101	1.555	-0.947	5.149
CO	5	IL	1	4	12	1.979	2.201	-2.335	6.294
CO	5	IL	3	3	9	-1.759	5.851	-13.226	9.708
CO	5	IN	1	2	6	-1.759	5.490	-12.520	9.002
CO	5	IN	8	3	9	1.523	1.921	-2.242	5.288
CO	5	IN	100	2	6	1.684	3.626	-5.422	8.790
CO	5	MI	1	3	9	2.716	1.106	0.548	4.884
CO	5	MI	2	2	6	3.927	2.466	-0.906	8.760
CO	5	MN	1	5	15	1.152	3.425	-5.561	7.864
CO	5	OH	9	2	6	4.205	5.366	-6.312	14.722
CO	5	OH	10	2	6	1.628	1.934	-2.162	5.419
CO	6	LA	1	2	5	4.481	2.863	-1.131	10.093
CO	6	NM	2	4	12	-0.253	2.315	-4.791	4.285
CO	6	OK	103	2	6	-1.237	3.511	-8.120	5.645
CO	6	TX	1	6	18	4.002	2.204	-0.318	8.323
CO	6	TX	2	3	9	2.430	3.165	-3.774	8.634
CO	6	TX	6	3	9	0.691	5.210	-9.520	10.903
CO	7	IA	1	2	6	0.907	3.867	-6.672	8.486
CO	7	KC	1	4	12	8.603	4.452	-0.124	17.330
CO	7	MO	2	5	15	0.601	1.051	-1.458	2.660
CO	7	MO	3	2	6	4.441	2.758	-0.965	9.847
CO	7	MO	4	3	9	5.834	2.069	1.779	9.890
CO	7	NB	2	2	6	3.348	1.277	0.845	5.851
CO	7	NB	3	2	6	-0.857	3.141	-7.014	5.299
CO	8	CO	1	4	12	-2.246	6.576	-15.135	10.642
CO	8	MT	1	4	12	2.633	3.473	-4.175	9.440
CO	8	UT	1	8	24	4.450	1.713	1.093	7.807
CO	9	AZ	200	10	30	2.072	2.985	-3.779	7.922
CO	9	NV	300	2	6	0.497	0.521	-0.523	1.518
CO	10	AK	20	8	24	-0.699	2.440	-5.480	4.083
CO	10	WA	1	2	6	-1.660	4.952	-11.366	8.045

TABLE E-2. STATES WITH HOMOGENEOUS DISPERSION ACROSS REPORTING ORGANIZATIONS BY LEVEL

TABLE E-2. STATES WITH HOMOGENEOUS DISPERSION ACROSS R. O. BY LEVEL

POLLUTANT	REGION	STATE	LEVEL	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
CO	3	PA	1	3	11	0.091	3.248	-6.274	6.456
CO	3	PA	2	3	11	0.809	2.984	-5.039	6.657
CO	3	PA	3	3	11	0.889	2.483	-3.977	5.755
CO	3	VA	1	2	9	-2.407	1.635	-5.613	0.798
CO	3	VA	2	2	8	0.276	1.127	-1.933	2.485
CO	4	FL	1	2	6	-1.470	5.953	-13.138	10.199
CO	4	FL	3	3	9	2.621	7.068	-11.233	16.475
CO	4	KY	1	2	8	0.958	5.283	-9.397	11.314
CO	4	KY	2	2	8	1.509	3.085	-4.539	7.556
CO	4	KY	3	2	8	1.712	1.511	-1.249	4.673
CO	4	NC	3	3	9	1.241	1.377	-1.457	3.939
CO	4	TN	3	2	6	1.603	1.687	-1.704	4.910
CO	5	IL	1	2	7	-2.357	4.924	-12.007	7.293
CO	5	IL	2	2	7	1.310	1.794	-2.206	4.826
CO	5	IL	3	2	7	2.179	2.072	-1.883	6.240
CO	5	IN	2	2	5	1.897	1.005	-0.074	3.867
CO	5	MI	2	2	5	3.379	1.896	-0.336	7.095
CO	5	MI	3	2	5	3.389	0.805	1.812	4.966
CO	6	NM	2	2	8	1.940	2.459	-2.881	6.760
CO	6	NM	3	2	8	0.365	0.991	-1.577	2.306
CO	6	TX	1	3	12	2.125	3.075	-3.901	8.151
CO	6	TX	2	3	12	3.414	3.626	-3.693	10.521
CO	6	TX	3	3	12	2.806	1.632	-0.394	6.005
CO	7	MO	2	3	10	2.638	1.644	-0.584	5.860
PB	9	CA	1	3	9	-1.232	13.351	-27.400	24.937
PB	9	CA	2	3	9	5.852	5.049	-4.044	15.748
PB	9	CA	3	3	9	-1.644	2.791	-7.114	3.825
PM10	3	PA	2	2	6	2.045	1.797	-1.476	5.567
PM10	9	AZ	2	2	7	-3.712	7.050	-17.529	10.105
TSP	3	MD	2	3	28	4.519	3.360	-2.066	11.103
TSP	3	VA	2	2	9	-0.161	3.641	-7.298	6.975
TSP	3	WV	2	2	6	6.411	2.562	1.390	11.432
TSP	4	AL	2	2	12	0.480	2.330	-4.086	5.046
TSP	4	KY	2	2	22	8.149	11.986	-15.345	31.642
TSP	4	NC	2	3	32	3.480	3.624	-3.624	10.584
TSP	4	TN	2	2	8	5.375	0.323	4.742	6.007
TSP	5	IL	2	2	8	2.305	4.103	-5.737	10.347
TSP	5	IN	2	3	13	0.588	2.683	-4.670	5.846
TSP	6	NM	2	2	8	1.529	9.434	-16.961	20.019
TSP	6	OK	2	3	18	-0.320	11.647	-23.148	22.508
TSP	6	TX	2	4	28	-2.052	4.633	-11.132	7.029
TSP	7	IA	2	3	12	11.717	8.218	-4.389	27.824
TSP	7	MO	2	3	7	3.210	3.918	-4.470	10.890
TSP	7	NB	2	2	29	-4.619	13.169	-30.430	21.191

TABLE E-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND REPORTING ORGANIZATIONS

TABLE E-3. STATES WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND R. O.

POLLUTANT	REGION	STATE	NUMBER OF R.O.	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
CO	3	MD	2	18	1.108	2.902	-4.579	6.795
CO	3	PA	3	33	0.596	2.693	-4.683	5.875
CO	3	VA	2	26	-0.686	1.734	-4.084	2.711
CO	3	WV	2	12	-4.379	6.878	-17.861	9.102
CO	4	AL	2	18	-0.802	2.530	-5.761	4.157
CO	4	KY	2	24	1.393	3.325	-5.124	7.910
CO	4	NC	3	27	0.071	2.354	-4.543	4.685
CO	5	IL	2	21	0.377	3.928	-7.321	8.076
CO	5	IN	4	24	0.933	3.280	-5.496	7.363
CO	6	NM	2	24	0.560	2.068	-3.493	4.613
CO	6	OK	2	9	-1.072	2.706	-6.376	4.232
CO	6	TX	3	36	2.781	3.268	-3.623	9.186
CO	7	IA	3	13	1.608	2.653	-3.593	6.808
CO	7	MO	5	36	2.398	2.075	-1.668	6.464
CO	7	NB	2	12	1.245	2.430	-3.518	6.009
CO	9	NV	2	9	-0.111	0.725	-1.533	1.311
PB	3	PA	3	18	0.514	5.640	-10.540	11.569
PB	4	AL	2	9	-3.904	7.796	-19.184	11.377
PB	4	FL	4	21	2.141	5.285	-8.217	12.498
PB	4	TN	2	12	0.981	6.460	-11.681	13.643
PB	5	IL	3	14	-6.133	20.580	-46.470	34.203
PB	5	MI	2	6	-1.541	4.900	-11.146	8.063
PB	6	OK	3	15	4.149	6.962	-9.497	17.795
PB	6	TX	3	15	-0.504	5.553	-11.387	10.380
PB	7	MO	5	29	0.229	8.077	-15.601	16.060
PB	9	AZ	2	9	0.345	4.940	-9.336	10.027
PB	9	CA	3	27	0.992	8.230	-15.140	17.124
PM10	3	PA	2	6	2.045	1.797	-1.476	5.567
PM10	9	AZ	2	7	-3.712	7.050	-17.529	10.105
TSP	3	MD	3	28	4.519	3.360	-2.066	11.103
TSP	3	VA	2	9	-0.161	3.641	-7.298	6.975
TSP	3	WV	2	6	6.411	2.562	1.390	11.432
TSP	4	AL	2	12	0.480	2.330	-4.086	5.046
TSP	4	KY	2	22	8.149	11.986	-15.345	31.642
TSP	4	NC	3	32	3.480	3.624	-3.624	10.584
TSP	4	TN	2	8	5.375	0.323	4.742	6.007
TSP	5	IL	2	8	2.305	4.103	-5.737	10.347
TSP	5	IN	3	13	0.588	2.683	-4.670	5.846
TSP	6	NM	2	8	1.529	9.434	-16.961	20.019
TSP	6	OK	3	18	-0.320	11.647	-23.148	22.508
TSP	6	TX	4	28	-2.052	4.633	-11.132	7.029
TSP	7	IA	3	12	11.717	8.218	-4.389	27.824
TSP	7	MO	3	7	3.210	3.918	-4.470	10.890
TSP	7	NB	2	29	-4.619	13.169	-30.430	21.191

TABLE E-4. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY LEVEL

TABLE E-4. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS STATES BY LEVEL

POLLUTANT	REGION	LEVEL	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
CO	2	1	2	13	-2.974	3.020	-8.893	2.944
CO	2	2	2	13	0.424	2.519	-4.513	5.362
CO	3	2	6	33	0.215	3.179	-6.015	6.446
CO	3	3	6	34	1.007	1.995	-2.904	4.918
CO	4	1	7	45	-2.268	6.281	-14.578	10.042
CO	4	2	7	45	1.120	3.362	-5.469	7.709
CO	4	3	7	45	1.683	3.104	-4.402	7.767
CO	5	1	6	40	0.525	5.814	-10.870	11.920
CO	5	2	6	40	2.793	3.120	-3.321	8.908
CO	5	3	6	40	3.169	4.264	-5.189	11.527
CO	6	1	4	25	0.560	3.173	-5.659	6.779
CO	6	2	3	23	2.546	3.723	-4.752	9.844
CO	6	3	4	25	2.049	1.541	-0.972	5.070
CO	7	2	4	24	3.664	6.146	-8.383	15.710
CO	7	3	4	24	3.922	6.426	-8.673	16.518
CO	8	1	3	16	0.781	4.578	-8.191	9.753
CO	8	3	3	16	2.951	2.868	-2.669	8.572
CO	9	1	2	13	0.845	4.717	-8.401	10.091
CO	9	3	2	13	1.891	1.979	-1.988	5.770
CO	10	1	3	15	-3.156	5.419	-13.778	7.467
CO	10	2	3	15	0.805	2.234	-3.574	5.183
CO	10	3	3	15	0.935	1.438	-1.884	3.755
PB	3	2	3	10	-0.601	7.494	-15.289	14.087
PB	3	3	3	10	-3.569	2.617	-8.698	1.561
PB	4	2	6	20	6.482	9.537	-12.210	25.174
PB	4	3	6	20	-1.688	8.050	-17.465	14.089
PB	5	1	6	15	-1.177	6.476	-13.870	11.515
PB	5	3	5	13	-8.114	22.513	-52.240	36.012
PB	6	1	3	12	-2.152	8.642	-19.091	14.786
PB	6	3	3	12	0.478	5.167	-9.649	10.605
PB	7	1	3	13	-0.271	5.992	-12.015	11.473
PB	7	2	3	14	4.503	10.454	-15.987	24.994
PB	7	3	3	14	-0.971	6.285	-13.289	11.347
PB	9	1	4	16	-7.485	10.259	-27.593	12.623
PM10	3	2	3	13	1.324	8.630	-15.590	18.239
PM10	4	2	5	19	2.950	5.258	-7.355	13.255
PM10	5	2	3	14	-0.379	4.635	-9.463	8.705
PM10	6	2	3	12	2.294	12.835	-22.862	27.450
PM10	7	2	4	16	5.053	10.753	-16.023	26.128
PM10	8	2	2	17	-1.856	3.114	-7.960	4.248
PM10	9	2	3	12	-3.467	16.444	-35.697	28.763
PM10	10	2	2	8	0.850	8.217	-15.254	16.955
TSP	1	2	5	35	3.010	5.951	-8.653	14.674
TSP	2	2	2	13	9.464	19.265	-28.296	47.224
TSP	3	2	4	53	2.366	7.689	-12.704	17.436
TSP	6	2	5	69	0.603	8.309	-15.683	16.889
TSP	7	2	4	65	0.976	10.201	-19.018	20.971

TABLE E-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND STATES

TABLE E-5. REGIONS WITH HOMOGENEOUS DISPERSION ACROSS LEVELS AND STATES

POLLUTANT	REGION	NUMBER OF STATES	N	WEIGHTED AVERAGE	POOLED STD.DEV.	LOWER 95% PROB.LIMIT	UPPER 95% PROB.LIMIT
CO	1	3	12	-0.641	1.918	-4.401	3.119
CO	2	2	39	-0.002	3.569	-6.998	6.993
CO	4	8	138	0.178	4.750	-9.131	9.488
CO	6	4	74	1.707	2.986	-4.146	7.560
CO	9	3	42	1.692	3.054	-4.294	7.678
CO	10	3	45	-0.472	3.907	-8.130	7.186
PB	1	6	27	2.028	5.856	-9.450	13.506
PB	2	3	18	1.830	6.529	-10.967	14.627
PB	4	7	63	1.514	8.469	-15.084	18.113
PB	5	6	43	-1.868	13.640	-28.602	24.865
PB	7	4	44	1.118	7.642	-13.860	16.096
PB	8	2	6	-0.200	6.630	-13.195	12.795
PB	10	4	18	1.032	7.250	-13.178	15.242
PM10	3	3	13	1.324	8.630	-15.590	18.239
PM10	4	5	19	2.950	5.258	-7.355	13.255
PM10	5	3	14	-0.379	4.635	-9.463	8.705
PM10	6	3	12	2.294	12.835	-22.862	27.450
PM10	7	4	16	5.053	10.753	-16.023	26.128
PM10	8	2	17	-1.856	3.114	-7.960	4.248
PM10	9	3	12	-3.467	16.444	-35.697	28.763
PM10	10	2	8	0.850	8.217	-15.254	16.955
TSP	1	5	35	3.010	5.951	-8.653	14.674
TSP	2	2	13	9.464	19.265	-28.296	47.224
TSP	3	4	53	2.366	7.689	-12.704	17.436
TSP	6	5	69	0.603	8.309	-15.683	16.889
TSP	7	4	65	0.976	10.201	-19.018	20.971

APPENDIX F

PROBABILITY LIMITS FOR METHODS

TABLE F-1. NATIONAL PROBABILITY LIMITS FOR 1988 PARS PRECISION DATA BY METHOD

TABLE F-1. NATIONAL SUMMARY BY METHOD FOR 1988 PARS PRECISION DATA

Pollutant = CO

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
8	3808	-0.157	5.640	-11.211	10.897
12	2601	-1.095	4.767	-10.439	8.249
18	166	-1.279	4.293	-9.694	7.136
33	66	-1.218	2.523	-6.162	3.727
41	696	1.143	3.878	-6.457	8.743
48	26	5.870	6.493	-6.857	18.597
51	3539	1.102	4.933	-8.568	10.772
54	3209	-0.475	3.548	-7.430	6.479
66	11	1.794	6.056	-10.075	13.663
67	21	-0.989	2.754	-6.387	4.408

Pollutant = NO2

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
21	218	0.468	6.058	-11.405	12.341
22	1254	-0.219	6.248	-12.465	12.027
25	1481	-0.204	5.843	-11.658	11.249
35	2998	-1.167	8.016	-16.879	14.545
42	343	-0.678	7.443	-15.267	13.911

Pollutant = O3

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
3	36	0.278	4.659	-8.854	9.409
4	455	-0.734	5.482	-11.479	10.011
7	776	-0.261	5.922	-11.868	11.346
14	19	0.582	2.814	-4.933	6.097
15	14	0.478	2.223	-3.879	4.835
16	12	-4.168	4.715	-13.410	5.074
17	530	-1.065	5.503	-11.852	9.722
19	11576	-1.019	5.752	-12.293	10.256
36	13	-7.269	11.352	-29.519	14.980
47	2242	0.137	3.827	-7.364	7.637
53	709	-1.772	4.950	-11.473	7.930
56	598	-0.452	4.007	-8.305	7.402

TABLE F-1. NATIONAL SUMMARY BY METHOD FOR 1988 PARS PRECISION DATA

Pollutant = PB

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
43	192	2.562	9.402	-15.867	20.990
45	3	4.944	8.563	-11.840	21.727
52	11	0.361	6.332	-12.051	12.772
57	102	-2.408	19.864	-41.342	36.526
58	24	-4.173	3.300	-10.640	2.294
59	41	-0.399	7.536	-15.170	14.372
803	735	-0.433	14.488	-28.829	27.963

Pollutant = PM10

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
62	256	1.779	9.289	-16.428	19.986
63	580	0.523	9.715	-18.518	19.564
64	988	-0.279	9.634	-19.161	18.603
65	63	2.987	8.038	-12.768	18.741
702	450	-0.030	7.368	-14.473	14.412
771	2219	1.407	10.872	-19.902	22.717
773	65	1.033	10.532	-19.610	21.676
774	13	3.441	11.544	-19.185	26.066

Pollutant = SO2

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
9	11887	-1.300	5.686	-12.444	9.844
10	46	0.201	5.564	-10.704	11.106
11	27	-2.710	6.643	-15.729	10.310
13	36	-0.431	3.825	-7.929	7.067
29	249	-2.272	5.637	-13.320	8.776
39	3977	0.014	5.179	-10.136	10.164
46	139	-2.016	5.678	-13.145	9.112
60	1568	-2.038	6.048	-13.892	9.816
61	158	-0.831	3.942	-8.557	6.895

Pollutant = TSP

Method	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
802	11839	0.090	8.766	-17.091	17.271

TABLE F-2. NATIONAL PROBABILITY LIMITS FOR 1988 PARS ACCURACY DATA BY METHOD

TABLE F-2. NATIONAL SUMMARY BY METHOD FOR 1988 PARS ACCURACY DATA

---------------------------- Pollutant = CO ----------------------------

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
8	1	208	1.165	9.367	-17.194	19.523
	2	175	0.599	4.358	-7.943	9.141
	3	135	-0.039	3.474	-6.848	6.771
12	1	260	-1.412	7.811	-16.721	13.898
	2	258	0.447	4.993	-9.340	10.234
	3	247	0.160	3.814	-7.317	7.636
	4	7	1.966	1.084	-0.159	4.090
18	1	7	3.008	4.375	-5.567	11.582
	2	7	1.869	4.314	-6.586	10.324
	3	5	-0.750	2.848	-6.332	4.832
33	1	3	-2.521	0.955	-4.392	-0.650
	2	3	-1.576	1.119	-3.769	0.618
	3	3	-2.528	1.299	-5.075	0.018
41	1	36	4.235	9.874	-15.119	23.588
	2	66	0.332	5.358	-10.168	10.833
	3	60	-0.667	2.995	-6.538	5.204
48	1	2	11.838	13.979	-15.560	39.237
	2	2	1.687	5.520	-9.132	12.506
	3	2	-0.260	2.093	-4.362	3.842
51	1	312	-0.062	6.826	-13.441	13.317
	2	307	0.459	3.970	-7.321	8.239
	3	218	0.402	3.680	-6.811	7.614
54	1	233	-0.227	4.974	-9.975	9.522
	2	227	0.059	3.444	-6.691	6.809
	3	222	0.698	3.041	-5.263	6.658
66	1	1	4.394	.	.	.
	2	1	-2.367	.	.	.
67	1	4	-5.996	7.003	-19.723	7.730
	2	4	-2.369	3.797	-9.811	5.073
	3	3	-3.197	4.099	-11.231	4.836

---------------------------- Pollutant = NO2 ----------------------------

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
21	1	12	-6.326	7.278	-20.591	7.939
	2	12	-5.469	4.272	-13.843	2.904
	3	11	-4.793	3.536	-11.724	2.138
22	1	108	2.507	11.000	-19.052	24.066
	2	104	1.807	6.616	-11.161	14.774
	3	85	1.028	4.790	-8.360	10.416
25	1	193	-0.224	6.907	-13.761	13.312
	2	190	-0.072	4.526	-8.943	8.798
	3	189	0.279	5.063	-9.645	10.202
	4	11	1.622	3.631	-5.495	8.738

TABLE F-2. NATIONAL SUMMARY BY METHOD FOR 1988 PARS ACCURACY DATA

---------------------------- Pollutant = NO2 ----------------------------

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
35	1	137	0.763	8.990	-16.857	18.384
	2	128	-0.806	6.573	-13.688	12.076
	3	114	-2.403	5.994	-14.152	12.076
	4	4	-2.299	1.546	-5.330	0.731
42	1	23	-2.908	12.665	-27.731	21.915
	2	24	-0.024	9.167	-17.991	17.943
	3	21	-0.581	7.959	-16.181	15.019

---------------------------- Pollutant = O3 ----------------------------

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
3	1	3	3.934	4.673	-5.224	13.093
	2	2	1.401	2.733	-3.956	6.758
	3	3	-0.429	2.804	-5.925	5.067
4	1	26	-3.048	6.901	-16.574	10.477
	2	26	-2.842	4.908	-12.461	6.778
	3	18	-2.648	5.229	-12.896	7.601
7	1	84	-0.360	8.181	-16.394	15.674
	2	81	-0.641	6.770	-13.910	12.629
	3	49	-0.633	4.970	-10.374	9.109
14	1	1	-2.778	.	.	.
	2	1	-1.754	.	.	.
15	1	4	-4.441	8.684	-21.462	12.580
	2	4	-3.948	8.296	-20.209	12.312
	3	4	-3.095	9.161	-21.051	14.860
16	1	3	6.196	7.992	-9.469	21.860
	2	3	-0.901	4.315	-9.358	7.555
	3	3	-2.539	4.024	-10.426	5.348
17	1	108	-0.743	8.843	-18.075	16.589
	2	107	-0.598	5.323	-11.030	9.835
	3	113	-1.331	6.920	-14.895	12.232
	4	1	-14.384	.	.	.
19	1	686	-1.263	6.327	-13.665	11.138
	2	676	-0.767	4.177	-8.954	7.419
	3	565	-1.048	4.078	-9.041	6.946
	4	90	-2.705	3.151	-8.881	3.470
20	1	3	0.418	7.262	-13.815	14.650
	2	3	-6.772	4.900	-16.375	2.831
	3	3	-8.129	3.983	-15.935	-0.322
47	1	297	0.476	4.949	-9.224	10.176
	2	297	0.399	3.595	-6.647	7.445
	3	296	0.306	3.287	-6.136	6.748
53	1	76	-2.983	5.255	-13.282	7.316
	2	76	-1.315	4.137	-9.424	6.794

TABLE F-2. NATIONAL SUMMARY BY METHOD FOR 1988 PARS ACCURACY DATA

Pollutant = O3

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
53	3	66	-0.564	3.667	-7.752	6.624
	4	23	-1.893	3.478	-8.710	4.925
56	1	73	0.171	5.018	-9.664	10.006
	2	73	-0.711	3.435	-7.443	6.021
	3	41	-1.304	3.089	-7.358	4.750

Pollutant = PB

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
43	1	174	1.331	6.128	-10.679	13.341
	2	155	0.358	7.720	-14.773	15.490
45	1	18	-4.604	8.884	-22.017	12.809
	2	16	-3.875	8.058	-19.669	11.918
59	1	13	-5.231	2.386	-9.907	-0.554
	2	13	-1.498	2.147	-5.706	2.709
803	1	795	0.038	6.759	-13.209	13.285
	2	672	-1.217	4.969	-10.957	8.523

Pollutant = PB_FLOW

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
43	2	49	0.988	2.860	-4.618	6.594
57	2	3	-0.776	2.129	-4.950	3.397
803	1	3	-2.090	2.763	-7.506	3.325
	2	55	0.279	4.038	-7.636	8.194

Pollutant = PM10

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
62	2	162	-0.127	3.225	-6.448	6.194
63	2	115	0.097	3.442	-6.649	6.844
64	2	213	-0.201	4.135	-8.307	7.904
65	2	21	1.972	5.108	-8.040	11.983
702	2	87	0.778	3.126	-5.350	6.905
771	2	626	-0.193	4.310	-8.641	8.255
774	2	2	1.672	2.010	-2.267	5.611

TABLE F-2. NATIONAL SUMMARY BY METHOD FOR 1988 PARS ACCURACY DATA

Pollutant = SO2

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
9	1	708	-0.324	7.893	-15.794	15.146
	2	716	-0.421	6.332	-12.832	11.990
	3	586	-0.645	6.149	-12.697	11.407
	4	51	-2.394	4.505	-11.224	6.437
10	1	2	-0.584	4.986	-10.356	9.188
	2	2	-2.235	1.527	-5.228	0.757
11	1	3	2.778	3.469	-4.022	9.578
	2	3	4.593	1.141	2.358	6.829
	3	2	-0.476	0.673	-1.796	0.844
13	1	17	-1.424	5.654	-12.507	9.658
	2	10	1.100	5.379	-9.443	11.643
	3	11	3.092	4.769	-6.256	12.440
29	1	13	2.196	5.583	-8.746	13.139
	2	14	2.400	5.328	-8.042	12.842
	3	15	0.479	5.536	-10.371	11.329
	4	10	3.322	5.181	-6.833	13.476
39	1	409	0.028	6.718	-13.140	13.197
	2	388	0.252	5.724	-10.968	11.471
	3	335	-0.402	5.704	-11.582	10.778
	4	32	0.154	5.138	-9.916	10.223
46	1	10	-2.971	6.747	-16.194	10.252
	2	10	-2.509	6.908	-16.048	11.030
	3	8	-3.350	7.066	-17.199	10.500
60	1	62	1.242	5.696	-9.921	12.406
	2	58	1.272	4.710	-7.960	10.504
	3	37	2.025	5.452	-8.660	12.710
	4	8	2.659	5.648	-8.412	13.729
61	1	11	-1.544	2.410	-6.268	3.180
	2	10	-2.062	4.010	-9.922	5.798
	3	9	-1.823	3.868	-9.404	5.757

Pollutant = TSP

Method	LEVEL	N	Weighted Average	Pooled Std. Dev.	Lower 95% Prob. Limit	Upper 95 Prob. Limit
802	2	2814	0.560	3.890	-7.065	8.184